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EDUCATION, OCCUPATION AND FAMILY PATTERNS OF SECOND GENERATION IMMIGRANT YOUTH IN THE U.S.: THE IMPORTANCE OF EMBEDDEDNESS IN SOCIAL RELATIONSHIPS IN THE TRANSITION TO ADULTHOOD

BY

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DISSERTATION

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Abstract

Within the United States, nearly all growth in the young adult population over the next forty years will come from immigrants and their U.S.-born children. While many immigrant youth face similar challenges, they also vary substantially in their access to family and institutional resources which may influence their ability to make a successful transition to adulthood. Utilizing national, longitudinal data from the adolescent (2002/2004), young adult follow-up (2006) and later adult follow-up (2012) surveys of the Educational Longitudinal Study (U.S. Department of Education), I examine the degree to which second generation immigrant youth are rooted in significant social relationships with parents, peers, teachers and in their communities and whether the potential and actual resources available from these relationships influence early patterns and later adult status attainment. I find that second generation immigrant youth vary in the intensity and quality of relationships during the adolescent development period and these differences in part reflect differences between racial/ethnic groups, gender and by family and neighborhood characteristics. The results from my hierarchical linear regression analysis also indicate that immigrant adolescence who are socially embedded within their family, peer, school and community have higher educational attainment and are more civically engaged ten years later in adulthood.

For my mother, Zhi Ying

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Chapter One: Introduction and Literature Review

Within the United States, nearly all growth in the next forty years of the nation's young adult population (ages 18 to 44) will come from immigrants and their U.S.-born children (Passel & Taylor, 2010). The transition to adulthood—also termed early adulthood, emerging adulthood and adultolesence—is a period characterized with specific cultural expectations, psychological identities and social affiliations (Furstenberg, Rumbaut, & Settersten, 2005). In the U.S., traditional markers of "adulthood" include living without parents, union formation, full-time employment and establishing economic independence from family (Alexander, Entwisle & Olsen 2014). Prior research shows immigrant youth vary substantially in their ability to attain educational and occupational success in adulthood (Fussell & Furstenberg, 2005; Mollenkopf, Waters, Holdaway, & Kasinitz, 2005). These differences may reflect cultural variability across racial and ethnic immigrant groups and by generational status in their expectations of what it means to succeed in as an adult. They may also be indicative of differential access to resources. Indeed, the ability to draw upon human, cultural and social capital, including family and institutional support, during this developmental period may be particularly important in explaining different trajectories among immigrant youth as they transition to adulthood. While prior work has often focused on parental education and ethnic neighborhood composition as key to understanding immigrant differences in adult outcomes in the U.S., less attention has been paid to how access to potential and actual social and economic resources during adolescence may have short and long-term consequences for later status attainment (Portes & Zhou, 2003). Additionally, ties within the family, among peers, in school and in the neighborhood or "social embeddedness" may also be a powerful mechanism by which youth create a positive sense of well-being and gain access to resources thereby improving the quality of their transition to adulthood (Jose, Ryan, & Pyror, 2012). The overall goal of this study is to examine whether and how social embeddedness across different domains during adolescence shapes the various pathways second generation immigrant youth take and ultimately influence their well-being in adulthood. A secondary goal is to determine what role gender and racial and ethnic background play in this process.

Utilizing data from the adolescent (2002/2004), young adulthood (2006) and later adulthood (2012) waves of the *Educational Longitudinal Study*, this study will examine three main questions. First, what family and neighborhood factors explain ethnic group and gender differences in social embeddedness during adolescence among second generation immigrants? This analysis includes an examination of the quality of social relationships, including frequency of interaction and access to potential and actual resources, among second generation immigrant adolescents with peers and parents, and within schools and communities before they begin the transition to adulthood. Second, how do these social relationships shape education, work and family formation patterns during early adulthood? Third,

does the quality of social relationships during adolescence relate to adult well-being measured 10 years later, including traditional markers of adult success such as educational and occupational attainment as well as civic participation? I also examine whether embeddedness during adolescence influences adult well-being through its effects on early work, family, and education patterns.

"Contemporary" Second Generation Immigrants

Between the mid-1920s to 1965, the flow of immigrants to the U.S. mostly from Europe slowed substantially. In 1965 immigration reform, however, propelled a new period of mass immigration comprised primarily of immigrants from Asia and Latin America. In recent decades, attention has shifted from the newcomers to their children as their numbers continue to grow in American schools and as they age into the labor market (Perlmann & Waldinger, 1997). Current and projected numbers show a continual increase in second generation immigrants. The proportion of U.S. children who are second generation immigrants has grown from 14 to 22 percent between 1994 and 2014 (Child Trends, 2014). Today, there are roughly 16 million second generation immigrant children and younger and 20 million adult children of immigrants, representing approximately 14 percent of the U.S. population between 18 and 29 years old (Pew Hispanic Center, 2013). This study focuses on the latter adult children group, as they presently come into adulthood and are impacting multiple sectors of the nation.

As immigrant children transition into adulthood, racial/ethnic identity, socio-economic conditions and family dynamics and relationships all play a central role in shaping adulthood outcomes (Batalova & Fix, 2011; Fussell & Furstenberg, 2005). In addition, immigrant families vary in their ability to provide the kinds of resources needed to support a successful transition. For example, parental education—one factor that can directly affect the quality and amount of resources distributed—varies significantly by immigrant origin; nearly 50 percent of Mexican immigrant parents have less than a high school degree, while South Asian immigrant parents have higher college completion rates than U.S.-born parents (Fortuny, Capps, Simms, & Chaudry, 2009). Immigrant families with varying levels of human capital are differentially positioned to promote educational and occupational success especially when faced with changes in the host society.

Over the past forty years, the U.S. has experienced substantial changes in the labor market, education, racial and ethnic relations and immigration policies which continue to shape the context and experiences of immigrants and their families. Scholars have argued that deindustrialization and the shift away from manufacturing and toward a service sector economy constituted a major barrier for to assimilation and upward mobility among second generation immigrant young adults (Padilla, 1997; Perreira, Harris, & Lee, 2007; Portes, Fernandez-Kelly, & Haller, 2005). Technological growth, the outsourcing of jobs to developing countries and an increase in global competition contributed to a decline in the kinds of jobs in the industrial sector which paid living wages and offered greater job security.

Traditionally, these types of jobs provided a key source of economic mobility for earlier second generation immigrants from Europe. Instead, as Drucker (1994) warned of the present U.S.: "It is the first society in which ordinary people—and that means most people—do not earn their daily bread by the sweat of their brow…It is a change in human condition" (p. 63-64).

The current labor market is dominated by the highly diverse service sector characterized by jobs at both the high and low ends of the skill distribution. Thus, American workers must either invest in higher education to secure high skilled service jobs or largely relegate themselves to the less or unskilled service jobs which offer lower wages and few benefits. For many second generation immigrant youth, who are faced with this "hourglass" labor market (high demands exist at the low and high-end), they "must cross *in the span of one generation* the educational gap that took their predecessors, descendants of European immigrants, several generations to bridge" (Portes et al, 2005). A recent Urban Institute study found that while wages do rise with every increment of education, the highest educational payoff comes at the bachelor's or higher level for all first- and second-generation immigrant groups (Batalova & Fix, 2011). It is this *sharp* increase in the demands for higher education among employers coupled with a decline in the kinds of jobs in the industrial sector that used to pay living wages for workers with little education that divides past and contemporary challenges of immigrant cohorts.

The process of assimilation for second generation immigrants today has also become more complicated around issues of race and ethnicity (Perreira et al, 2007, p. 8). Immigrant families and their children enter into a nation where race has always been central to identity (Omi & Winant, 1994). The racial hierarchy in the U.S. means that a majority of contemporary second generation immigrants are considered non-white, and their "enduring physical differences from whites" (Portes et al, 2005) create a barrier to assimilation. Second generation immigrant youth need to develop frameworks of understanding the influence of race on their daily lives and life chances. Omi and Winant (1994) argue that the U.S. racial ideology which developed in the decades following the civil rights movement was one that favors a "color-blind" society which ideally does not consider race in leadership selections, hiring processes, or general distribution of services and goods. Injustice, then, is rearticulated as "preferential treatment" for racial minority groups. This new form of "racism", they argue, is the result of the dominant white majority's perception that we went too far in trying to eliminate racial discrimination and increasingly view money spent on a range of social programs as debilitating, not uplifting, target populations. Within the context of immigrants and refugees, Omi and Winant (1994) find that many in the native, mainstream population increasingly blame job loss and employee dislocation on "illegal aliens" and this climate is exacerbated further with rising scarcity such as unemployment and cutbacks to social programs in the U.S. With this increasingly racialized and tense immigration context, this present study incorporates the extent to which families feel a part of their community and if there are any hostile relationships in the

classroom with the immigrant youth. Early disengagement from community members and school adults can limit opportunities during the transition to adulthood of second generation immigrants.

"Transition to Adulthood" Challenges of the Second Generation

Changes within the U.S. also include the demographic shift in the adulthood period, where adolescence is no longer the bridge between childhood and adulthood. The shift from adolescence to adulthood is an important developmental period to examine as the transition can reveal new vulnerabilities and strengths. As mentioned previously, the transition to adulthood is increasingly viewed among scholars and the public alike as a unique period in the life course characterized by emerging or changing identities, expectations, and social affiliations (Furstenberg, Rumbaut, & Settersten, 2005). It can be a "dense" developmental period as young adults are achieving multiple milestones. However, for a substantial number of families, youth are leaving home later than in previous generations, prolonging school by obtaining higher levels of education and delaying marriage (Furstenberg, 2010). The traditional markers of "adulthood" in American society, leaving home after high school completion, entering the workforce and getting married, have been under scrutiny recently as these markers are labeled increasingly irrelevant for many youths during this transition to adulthood. The expansion of higher education corresponds with the delay in family formation, labor market demands for a more skilled workforce, the decline of traditional high paying, less skilled and semi-skilled jobs in the industrial sector, and the entrance of women in the labor market. Furstenberg (2010) in investigating demographic shifts in the family states that it "simply takes more time than it did even a half-century ago to gain a job that is secure enough to form and support a family" (p. 69). Young adults need more time to complete the necessary schooling to obtain jobs that will lead to middle-class earnings and may elect to hold off on marriage or child-bearing until they feel established. With an understanding of this expanded schooling, this present study includes a focus on the educational pathway beginning from on-time high school graduation to adulthood educational attainment—and persistence along this pathway.

The joint achievement of work and family formation has emerged as a prominent challenge during this developmental period, especially for women. As an illustration, an article about the unequal balance of work and family life for women titled "Why Women Still Can't Have it All" received much attention and became the most-read article in *The Atlantic* (Kantor, 2012; Slaughter, 2012). Much of the response centered around what "having it all" means for women and the missing piece of diversity in adulthood goals (e.g. early childbearing, not wanting children, feeling okay with compromising a full-time career). Segura (1994), in his study of Mexican and Chicana women, found that women from lower socioeconomic classes experience a less intense role conflict between motherhood and wage work. As these women were raised in a world where it was often necessary to merge economic and household work, there is not such a strict dichotomy of the public and private spheres—employment is perceived as

a "workable domain" of motherhood (Devashayam & Yeoh, 2007). Subsequently, for second generation immigrant youth who have been raised in similar household settings, there may be a complexity in integrating their earlier experiences with the normative expectations of their peers and their wider social context.

The "new home economics" hypothesis proposes that the significance of marriage and child bearing decreases for women as they increase their investments in education and career development (Becker, 1981). In sum, as women value more time in education and job opportunities, there is a greater likelihood that they will postpone or avoid marriage and motherhood. However, there is another nuance to this joint achievement that centers on the "transitional" challenge of young adults in the current labor market and the change of normative expectations. Blossfeld and Huinink (1991) argue that women's extended participation in higher education is aligned with a normative expectation that women are "not ready" for marriage and to become a mother. Recent research on union formation has supported this approach as less than one quarter of adults in the U.S. wed prior to age 25. Cohabitation has emerged as a more normative step, and adolescents often see cohabitation as a compatibility measure for marriage—not an alternative to marriage (Manning et al., 2007). However, young adults who do engage in early family formation activities (i.e., having a child, getting married, cohabitation) are disproportionately from lower socioeconomic backgrounds and tend to lower levels of schooling. Research has found that early family formation, including birth outside of marriage, carries little stigma for low-income women (Cherlin et al, 2008). Parenthood can give validation, a sense of purpose and for some, motherhood is the best of what life can offer (Alexander, Entwisle, & Olson, 2014).

Immigrant generational status and racial/ethnic group variation in family formation is frequently discussed in two approaches: first, a "minority group status" hypothesis, where the increased need for human capital delays family formation; and second, a "blocked opportunity" approach, where minority youth become disengaged from school and in turn, invest in early family formation. Glick et al (2006) found that Mexican-origin girls are more likely to follow the "blocked opportunity" approach, while their results suggest that Asian-origin youth may conform more to the "minority group status" hypothesis. Analyses by immigration generation also support the "minority group status" hypothesis that second generation immigrants in comparison to later generation immigrants have a later transition to family formation (Glick, Bean, & Van Hook, 2006). Indeed, research has suggested that family formation during young adulthood, whether early motherhood or cohabitation is beginning to play a significant role in the stratification of families in the U.S., as race and educational attainment increasingly divide life course pathways (Cunningham, 2010). For instance, college educated white women follow frequently the traditional pathway of education completion, marriage then childbearing, while less educated white women are increasingly having children out of wedlock or during cohabitation. On average, Black

women are more likely to have children outside any type of co-residential arrangement, although cohabitation is more common compared to white women. Race, immigration generation, and education have been found to be significant factors in adulthood markers such as family formation and this study expands on this relationship through an examination of social embeddedness as a potential mediating factor. Beyond the achievement or attainment of education, how does involvement and closeness within the environmental contexts of school and the community affect work and family formation outcomes of second generation youth?

Social Embeddedness

Questions of "becoming adult" and "feeling American" are at its essence questions about identity. Are second generation immigrants truly identifying as an adult and as U.S. citizens? Social embeddedness is crucial here in understanding if second generation young adults are meaningfully connected to and identifying with networks and institutions. This study as well examines the civic engagement of second generation immigrants in adulthood. For youth to identify as an adult and to assimilate into society, being embedded in a community or connected to an institution is vital to this process. Literature has often linked embeddedness in networks and social relationships to access (or limitation) of resources and support (Lin, 2001; Portes & Sensenbrenner, 1993). Few studies, however, have focused on whether embeddedness has a positive influence beyond adolescence into later adulthood among immigrant youth. A recent Child Trends report, examining long-term implications of supportive relationships, found that young adults overall who reported caring relationships with parents and teachers had a greater likelihood of lower-risk transitions into adulthood (Terizan, Moore, & Constance, 2014). Additionally, Jean Phinney in her work of ethnic identity development argues that forming a strong sense of belonging with an ethnic community is positively associated with well-being in adulthood (Phinney, Horenczy, Liebkind, & Vedder, 2001). Minority youth who feel "strongly anchored" in the identities of their families, communities and peers do better in schools and pursue an upwardly mobile acculturation path (Gibson, 1997). Conversely, disconnectedness can lead to poor adult status attainment and well-being of youth of color. Research has examined the ways in which structural exclusion (e.g. employment) and social exclusion are experiences of poor youth and youth of color that disconnect them from mainstream opportunities, lifestyles and outlooks (McDonald and Marsh, 2001).

Social embeddedness can be conceptualized as quality and intensity of social relationships youth can draw upon to as they enter into and complete markers of a successful transition into adulthood. There are various studies on constructs such as a "sense of belonging" and "connectedness" that focus on a significant tie between youth and another individual or group. A substantial portion of this research examines how closeness with parents and teachers during adolescence impact individual well-being and achievement during high school (Jose, Ryan, & Pryor, 2012; Resnick et al, 1997). The use of "social

embeddedness" in the study, in comparison to other constructs, stems from the research on social capital, which incorporates network resources and membership obligations that are most developmentally relevant in the transition to adulthood period (Portes & Sensenbrenner, 1993). Measurement of social embeddedness may be decomposed into two elements: the quantity or intensity of the relationship and the quality of potential or actual resources that contextualize the composition of the relationship.

Chapter Two: Theoretical Framework

The process of social embeddedness can act to constrain or facilitate opportunities for second generation immigrants during the transition to adulthood. Here, the research on social capital can be useful for understanding how embeddedness and the membership of second generation immigrants in particular networks is connected to available resources. In addition, assimilation theory can also be very important in helping to frame and identify the unique structural and behavioral values that simultaneously affect the process of social embeddedness. In essence, the assimilation process forms the properties of social capital by acting as "precursors or preconditions" (Lin, 2001). Multiple conceptualizations of social capital exist (Bourdieu, 1986; Coleman, 1988; Loury, 1998; Putnam, 1995) and many critics argue that the theory has been over-versatile, too binary, and circular in its logic (Portes, 1998; Woolcock, 1998). There is a danger, Portes (1998) warns, in "bundling" everything up. Heading this advice, this study will draw from one of the earlier conceptualizations of social capital offered by Bourdieu as the "aggregate of the actual of potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition." The validity of social capital, therefore, relies on its contextualization—where social capital has different nuances according to different contexts. Any form of social capital, therefore, will have advantages and disadvantages that vary from context to context. Thus, social capital can be linked to assimilation theory, especially segmented assimilation theory.

Assimilation Theories

Broadly, there are two perspectives in assimilation theory where scholars place different emphasis: the cultural perspective and the structural perspective. The cultural perspective centers on immigrants and their descendants becoming indistinct from the natives in the host country. For example, Alba and Nee (1997) define assimilation as the closing of cultural and social distances that may separate immigrants and later immigrant generations from the mainstream U.S. society. During this process, immigrants may learn an unaccented form of English or give up loyalties of their home country. The cultural perspective of assimilation places less emphasis on where immigrants end up in the social hierarchy. As described earlier, because "mainstream" is defined as malleable (Alba & Nee, 2003), second generation immigrants are regarded as successfully assimilating when they feel at home in the same spaces of the majority group. Certainly, there is research supporting that this cultural perspective of assimilation is taking place. Second generation immigrants are nearly all strong in English and are internalizing the goals and behaviors of the U.S. mainstream (Portes et al, 2005).

The structural perspective, in contrast, operationalizes assimilation by the second generation's ascent up the socioeconomic ladder. There is less emphasis on language and cultural ways, and more emphasis on whether the immigrant group has made successful entry into the mainstream, middle class.

As described earlier in the changing context of U.S. society, fulfillment of this aspiration by second generation immigrant youth is becoming increasingly difficult given the present state of the labor market and persistent racial hierarchy. Additionally, while Portes and Rumbaut (2001) argue that this structural perspective is more aligned with the aspirations of immigrant parents—i.e., concerns of socio-economic progress are greater than cultural assimilation—it is still evident in other research that cultural assimilation, especially with identity formation, is still of importance for second generation youth and their parents (Waters, 1999).

Alba and Nee (2003), in revising Robert Park's writings about the process of assimilation, state that what is considered the "mainstream" is malleable and flexible; new immigrants may or may not choose to assimilate into it. Revising earlier conceptualizations, they define mainstream as consisting of "spaces where members of the majority group, including its working-class, feel at home" (Alba & Nee, 2003). Thus, mainstream assimilation is viewed as successful if the social and cultural distance between immigrants and the mainstream are diminished. While some immigrants may experience downward mobility, mainstream assimilationists argue that the contemporary second generation should be viewed as being successfully assimilated given their increasing acquisition of higher education and growing presence in the middle class. They argue that this is evidence of accessible networks of support and increased social mobility among some contemporary immigrants and their children.

On the other hand, segmented assimilation theory, posits there are multiple ways of "becoming American" and this process may not necessarily be beneficial (Bankston & Zhou, 1997). Assimilation is viewed from a more structural perspective which recognizes the importance cultural and behavioral contributions of mainstream assimilation theory. Segmented assimilation theory posits that the U.S. is diverse and segmented along lines of race and social class, with multiple divergent assimilation pathways for contemporary immigrants. The paths of mobility are determined by human capital, family structure, and modes of incorporation. One of the central arguments is whether the process and consequences of assimilation depend upon the local social context in which second generation immigrants are embedded within (Xie & Greenman, 2011). As a result, there are three possible paths of assimilation: integration into the U.S. middle class (straight-line assimilation); assimilation into the urban underclass (downward assimilation); and an intentional preservation of immigrant community culture that is followed by economic integration (selective acculturation).

Segmented assimilation theorists focus on the widespread downward assimilation among contemporary second generation immigrant young adults into more marginalized segments of U.S. society (Alba, Kasinitz, & Waters, 2011). Indeed, mainstream assimilation and segmented assimilation theorists fundamentally disagree over the extent to which immigrant groups have downwardly assimilated (Alba, Kasinitz, & Waters, 2011, p. 765). Haller, Portes, and Lynch (2011) believe that the disagreement

between assimilation theories can truly be summed up in a case of: is the glass half empty or full? For example, Alba and colleagues (2011) argue that components of downward assimilation such as unemployment and arrests are not infrequent in young adulthood and could be overcome; Haller and colleagues (2011) finds this to be a "rosy lens" as such experiences could result in a turning point in the life course that significantly handicaps future socioeconomic progress.

In the study, segmented assimilation theory will provide an important framework for understanding social embeddedness because of the emphasis on the specific socio-historic, contextual nature of the immigrant experience that shapes divergent pathways. Disparities in human capital, family structure, and modes of incorporation can lead to disadvantage or act as a buffer thereby improving adult outcomes. Thus, the study will draw on segmented assimilation theory as a way to operationalize causal factors that translate to patterned differences in the transition to adulthood of contemporary second generation immigrant groups. Mainstream-assimilation theory loses empirical power when, in an attempt to encompass ongoing societal change, defines "mainstream" too broadly. Due to adopting "mainstream" as a multi-faceted mainstream, there is an expectation that second generation immigrant youth will *eventually* occupy, *somehow*, one space within the mainstream. As a consequence, the assimilation process is normalized in the face of diverse pathways of immigrant youth, some of which include significant risk of downward mobility. Changes within the U.S., as described earlier through examples of the labor market and racial hierarchy, demonstrate that there are high barriers that could shape distinct pathways to adulthood of second generation immigrants. Within the model of segmented assimilation, barriers and obstacles are acknowledged within the larger societal level (e.g. re-structuring of work industries, racial hierarchies) and on specific local levels (e.g. community reception). The function of social capital can be integrated here, in this discussion of specific social contexts.

Bourdieu's Social Capital Theory

Social capital is one of Bourdieu's three forms of capital: economic, cultural, and social—which together explain the structure and dynamics of different societies (Bourdieu & Wacquant, 1992). Bourdieu (1986) produced the first systematic, contemporary analysis of social capital. He focused on the benefits that are accrued to individuals because of their group memberships, and the solidarity developed within these groups is deliberately constructed for the purpose of garnering resources. It is through network connections that social capital is produced and reproduced. Consequently, social networks are not natural or inherent of any group, but are developed through investment strategies to institutionalize group relations. Bourdieu frames the dynamics of these relationships as constitutive of individual identities and strategies (Foley & Edwards, 1999). Bourdieu additionally emphasizes the interconnectedness of the three forms of capital and the crucial, final reduction of all form into economic capital. For instance, by using their social capital, such as contacts with experts or affiliations with

institutions that award credentials, individuals can increase their cultural capital; (Bourdieu, 1986). These are relationships that are "necessary and elective, implying durable obligations subjectively felt" (Bourdieu, 1986, p. 250). Unlike plain economic exchanges, transactions with social capital are characterized by "unspecified obligations, uncertain time horizons, and the possible violation of reciprocity expectations" (p. 4). Due to this lack of clarity, a systematic treatment of social capital must distinguish between its various players and resources. Portes (1998) offers that while Bourdieu believed the outcomes of possessing social capital can be reduced to economic capital, the processes that bring about this transformation were not transparent.

Portes (1998) extends Bourdieu's conceptualization of social capital by decomposing it into two elements: the social relationship and quality of resources. Social relationships would directly allow an individual to claim and mobilize resources possessed by other group members by the extent to which this occurs is moderated by the amount and quality of those resources. Thus, the volume of social capital an individual possesses depends on the size of network connections that can be mobilized and the volume of social capital each network member holds. Portes' (1998) extension of social capital theory is an important one as it distinguishes among the possessor of social capital (i.e. the individuals making the claims), the sources of social capital (i.e. those agreeing to the demands), and the resources themselves. He also frames social capital as a product of the individual (e.g. the relationship between the agent and social units), rather than of the "collective" (e.g. civic spirit and obligations on a community or national level) (Putnam, 1995).

Life Course Theory

The word "transition" is defined in a common dictionary as a passage from one state to another[1], evoking an implicit conceptualizing of a transition as movement and a process. Therefore, a dynamic research approach should be taken in evaluating the "transition to young adulthood," and the five principles of the life course perspective is valuable here as it steers analysis towards a holistic understanding of lives over time and across changing social contexts (Elder, Johnson, & Crusoe, 2003). The life course perspective also recognizes that human lives cannot be removed from history, timing, the importance of individual choices and relationships with significant others. Elder (1998) labels life course a "theoretical orientation" that guides in formulation of research problems, selection and rationalization of variables, and development of strategies for designing and analyzing data.

The first principle of life-span development states that human development and aging are lifelong processes. This demonstrates the ongoing linkages of early life experiences and future experiences. The third and fourth principles discuss the influence of the changing nature of the socio-historical context and

[1] Merriam-Webster.com defines transition as "noun; a passage from one state, stage, subject, or place to another: change."

the effect of the timing of life events. The third principle of time and place states that the life course of individuals is embedded within the historical times and places that shape their lifetime experiences. Local context is salient in the assimilation process and in the liquidity of social capital, as discussed in the link of segmented assimilation theory and social capital (Perreira et al, 2007; Pong & Hao, 2007). The principle of time and place emphasizes here the interplay of context with individual development. The fourth principle of timing speaks to variability that occurs within cohorts; the same events affect individuals and hold meaning in different ways depending on when they occur. For example, the timing of leaving home is affected by a normative social time table and when residential mobility occurs, it can also impact the process of social embeddedness from one context to another.

The second principle of agency states that individuals construct their own life course through the choices and actions they take within the opportunities and constraints of history and social circumstance. Though the relationship between agency and structure is ongoing throughout the life course, it is best exemplified during the process of assimilation and social embeddedness. Empirical findings suggest that immigrant parents and their children actively modify their assimilation behaviors in response to the local context (Greenman, 2011; Waters, 1999). Further, the assimilation process and social embeddedness affect one another, such that assimilation behaviors can influence the level and form of embeddedness. Social embeddedness should similarly be conceptualized with human agency because individuals, within the constraints of social structure, *deliberately* construct relationships and connections with networks or institutions.

The fifth life course principle of linked lives posits that lives are lived interdependently and that social-historical influences are expressed through this network of shared relations. This principle is highlighted with the definition of social capital: the ability to secure benefits through network memberships (Portes, 1998). Yes, the interdependency of lives is illustrated in the assimilation process (e.g., family relationships is a key assimilation determinant) and social embeddedness, as well. However, the *expression* of linked lives appears most significantly through accessibility and mobilization of resources because of network relationships. Elder (1998) argued that socio-historical effects upon one member are then shared through relationships. For example in his study of families during the Depression crisis, economic hardships exacerbated fathers who were inclined toward irritability and this more adversely affected the quality of family living (e.g. parenting, marriage cohesion) (Elder, 1998). The socio-historic effect is seen explicitly expressed through the familial relationships, in this example. This proposal utilizes the fifth life course principle as a direct link of the relationship of social capital and positive and negative returns, which illustrates Elder (1998)'s statement that socio-historical effects are shared and manifest through relationships, linked lives.

Current Study

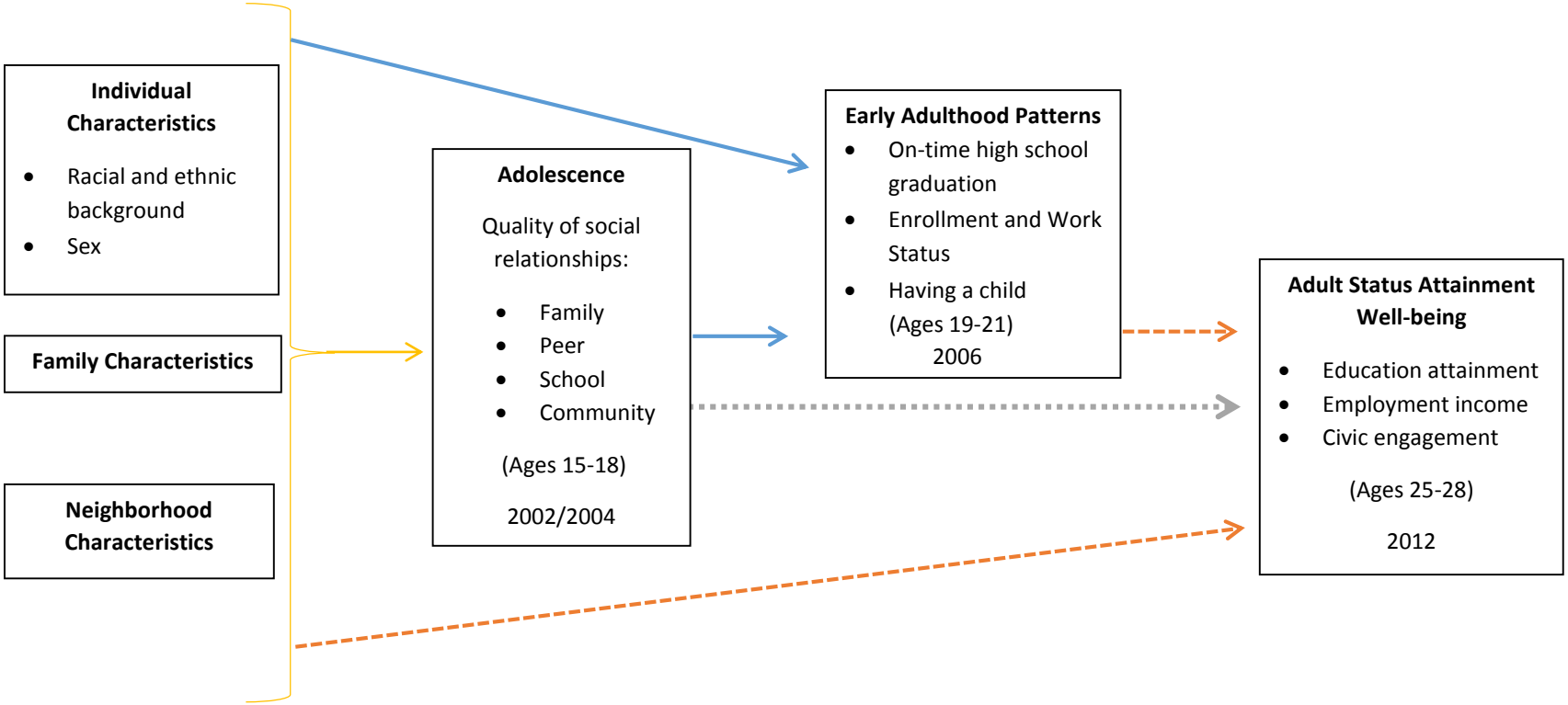
This study draws from social capital theory, segmented assimilation theory and life course theory to better understand how social embeddedness during adolescence may impact the transition to adulthood among second generation immigrants. The idea of social embeddedness used in this study is defined as the degree to which youth are rooted in a variety of social relationships and the degree to which individuals can draw upon resources available within the social networks. Embeddedness within relationships can be viewed as a kind of "investment strategy" that youth draw upon to develop their sense of identity and to enable them to make choices about their lives as they enter adulthood. Specially, this study decomposes social embeddedness into two elements: (1) the quantity or intensity of the relationship ties and (2) the quality of potential or actual resources that contextualize the composition of the relationship. Figure 1 presents an analytical map of the current study showing the links between family background, the quality of social relationships in adolescence, early education, work and family patterns and adult outcomes. Specifically, this study addresses three main questions.

1. What is the quality of social relationships, including intensity (frequency of interaction) and access to potential and actual resources, among second generation immigrant adolescents with their parents, peers, schools and community? Do these social relationships vary by racial and ethnic background and for males and females?

    1b. Does neighborhood composition (ethnic and racial, SES, unemployment) and family background (household arrangements, parent English fluency, parent SES) in adolescence influence the quality of second generation immigrant adolescent social relationships?

1. Does the quality of social relationships, family background, and neighborhood composition during adolescence affect early education, work, and family formation patterns during the transition from adolescence to early adulthood (i.e., ages 19-21)? And if so, does the relationship vary by racial and ethnic background and for males and females?
2. Is the quality of social relationships during adolescence related to adult status attainment (including postsecondary attainment, income) and well-being (e.g. civic participation? And if so, is the relationship mediated by early education, work and family patterns? Are there differences in these relationships by racial and ethnic background and for males and females?

Figure 1. Analytical map of research questions examining the link between background determinants, quality of social relationships and early adulthood patterns during the transition to adulthood of second generation immigrant youth (ELS 2002)



Chapter Three: Methods

Data

This study will utilize data from all four waves of the Educational Longitudinal Study of 2002 (ELS) to examine social embeddedness over time among a national sample of second generation immigrants. To answer the first research question concerning the nature of social relationships during adolescence, data from the base year when youth were in 10th grade and first follow-up survey, conducted 2 years later in 2004. To examine how social relationships relate to educational occupational pathways during the transition to young adulthood, data from the base year, first follow-up and second follow-up survey conducted in 2006 will be used. To determine whether and how social relationships during adolescence influence adult attainment, data from the base year, first, second and third follow-up survey collected in 2012, will be used.

ELS began in 2002 as a national longitudinal study of a representative sample of high school sophomores in the U.S, collected by the National Center for Education Statistics. ELS used a two-stage sample selection process. Schools were first randomly selected and then asked to provide sophomore enrollment lists. Student respondents were randomly selected from the list. The baseline survey questioned over 15,000 students and their parents from 750 high schools across the U.S. during the spring term. The survey includes detailed information on student's activities in school, behavior, achievement and attitudes as well as information about parent's socioeconomic background and parent-child interactions. The first follow-up occurred during 2004 when most of the base year sample were seniors in high school, although a minority of 10th graders who were followed up 2 years later were in other grades, had dropped out, or graduated high school early were also surveyed in 2004. The sampling frame of the first follow-up resulted in two target populations: one group of students who were enrolled in 10th grade in 2002 but dropped out between 2002 and 2004; and a second group who were actively enrolled in 12th grade in 2004. An advantage of the ELS data is the tracking of student dropouts, who serve as a major analytic subgroup. Dropouts are defined as student respondents who were absent from school for 4 consecutive weeks or more at the time of the survey, for reasons not due to accident or illness.

The second follow-up occurred during 2006 when most youth were either primarily or exclusively enrolled in post-secondary education (up to their second year) or primarily working in the labor market. Among those who were working, most report never having attended college but some of those who are primarily employed report having some post-secondary experience. Respondents who were enrolled in post-secondary education completed questions about their education pathway, while those solely employed answered questions about their employment, job conditions and the transition to work. All young adults surveyed in 2006 were also given the community and household survey questionnaires.

The third and final follow-up was conducted in 2012, when the sample was approximately 25 to 28 years old. During this wave of data collection, young adults reported retrospectively on their experiences with post-secondary education and employment. Additionally, research issues in the third follow up's agenda that are most pertinent to this proposal include the transitions from high school to either postsecondary or work, family formation, and civic engagement.

Sample

An additional strength of this dataset is its large sample of immigrant youth and its oversampling of Asian students. Asian students were sampled at a higher rate than White, Black, and Hispanic students to ensure a comparable comparison group—this is especially significant when analyzing racial/ethnic differences across the contemporary second generation immigrant cohort in their transition to adulthood. The sample used for the study will be restricted to second generation immigrants: respondents who were born in the United States and had at least one biological parent born in a foreign country or in Puerto Rico (N = 1,641). In the second generation sample, 50 percent are male (N = 825) and 36 percent of the second generation youth are of Hispanic background (N = 591). This is comparable to the national percentage of the Hispanic share of second generation immigrants (Pew Hispanic Center, 2013). As Asian students were sampled at a higher rate, Asian immigrant youth follow at 35 percent (N = 574) of the data. Fifteen percent of the sample is non-Hispanic white and six percent is non-Hispanic black.

Measures

Appendix A contains information on the metrics used to create the measures of social embeddedness and all the outcomes in adulthood. Additional information on all the variables used in the analysis is presented below and in Appendix A.

Social Embeddedness

The study extends prior research on similar constructs of social embeddedness by conceptualizing embeddedness as the degree to which youth are rooted in a variety of social relationships and the degree to which actual or potential resources are available within the social networks. The four broad social relationships (family, peer, school and community) have been found to be influential contexts for assimilation of immigrant youth and emerge as background determinants in segmented assimilation theory. I examine measures of intensity and quality of relationships across these contexts to understand the influence of time spent in these relationships and the types of interactions that can occur. As youth transition out of and into different social environments during the transition to adulthood, it becomes increasingly significant to examine the significance of social relationships within these environments during adolescence, early adulthood and adulthood. The means, standard deviations and metric for all of the variables used in the analysis are in Appendix A, additional details are presented below.

There a multiple variables which tap into the intensity and quality of relationships second generation immigrant youth have with their peers, families, schools and in their communities. The ELS data provide a rich array of measures which can be used as proxies both for the intensity of social relationships and potential or actual access to resources.

Social Relationships: Family Domain

Parent-child communication. ELS surveys how often the youth discusses a variety of topics with their parents. A majority of these topics are academic related, including: school courses; school activities; things studied in class; grades; prep for ACT or SAT; going to college; and current events. These discussions indicate the level of frequency and can also be indicative of quality in terms of relationships the youth has that support school and educational goals. In addition, parents could be transmitting potential valuable resources (e.g. information about SAT, keeping track of courses for graduation) that ensure positive early educational patterns. The response categories of each item are measured as 0 = Never, 1 = Sometimes and 2 = Often. I average responses from each of these seven discussion topics to create an index of the frequency of parent-child discussion across these domains. Cronbach's Alpha for this measure is high at .9.

Family value: Living close to home. Research has found that second generation immigrant youth who have stronger family ties tend to have lower geographic mobility, which then affects labor force participation and other economic outcomes (Alesina & Guiliano, 2010). I use a measure of youth's ranking of how important it is to live close to their parents or relatives as one indication of the strength of family ties. The response categories are 0 = Not important, 1 = Somewhat important, and 2 = Very important.

Intergenerational closure. Measures of intergenerational relationships are important in examining the diversity of social networks and their ability to transfer and reinforce norms and values. Kao (2007) finds that intergenerational closure positively influences second generation immigrant's academic achievement, but there are differential returns by race. ELS asked the respondent for information on three friends, surveying if the respondent "knows Friend 1's parents" and if the respondent's parents "knows Friend 1's parents" (0 = No; 1 = Yes). I summed together the two measures for the three friends, using *egen rowtotal* in STATA 12. This resulted in a scale ranging from 0, which indicates the youth does not know any of their three friends' parents and that their parents know none of their three friends' parents, and 9, where they know all of their three friends' parents and their parents know all of their three friends' parents. This measure has a Cronbach's Alpha of .7.

Maternal college aspiration. In addition to a direct measure of simply knowing a friend's parent, I include a measure that examines if the quality of intergenerational relationships could potentially affect a positive early adulthood education pattern. I include a question whish asked immigrant youth whether

their mother "desire(s) for the respondent to attend college after high school" (0 = No; 1 = Yes). It is significant that this is surveyed from the immigrant youth, as it measures if this goal is transmitted and understood by the youth. The variable is dichotomous, the maximum possible value is "1" and this measures if the mother had a desire for the respondent to attend college after high school. ELS does measure father's college aspiration, however the variable has a high correlation with mother's college aspiration and initial analyses found a stronger correlation between high school completion with mother's college aspirations compared to father's.

College entrance information: Family, friends, school. In addition to the measures of the intensity and quality of relationships, I examine if there is an actual access of resources within the networks of friends, family and schools. One significant type of information that affects early adulthood education patterns for immigrant youth, who often are a first generation college student in the United States, is access to the complexities of college application and enrollment. I separate if youth had gone to the individual for college entrance information (0 = No; 1 = Yes) by three contexts: friends, family (i.e. parent, sibling, other relative) and school (counselor, teacher and coach).

Social Relationships: Peer Domain

Peer values: Academic, social, employment and community. In addition to measures of relationship intensity, I assess the quality of these relationships through a range of items peers feel are important and their plans after high school. To explore peer values, I performed principal components factor analysis on a total of ten items that the youth rated was important for his or her friends. Respondents were asked to indicated on a response scale (Not important, Somewhat important, Very important) about how important it was to: attend classes regularly; study; play sports; get good grades; be popular with students; finish high school; have a boyfriend or girlfriend; continue education past high school; do community work; have a job; get together with friends; go to parties; and to make money. Table 1 presents the results from the principal components factor analysis and demonstrates evidence for four underlying factors. The model did was exploratory in nature and did not specify how many factors the variables would load to. These variables were then combined to create four ordinal variables with three categories (0 = Not important; 1 = Somewhat important; 2 = Very important) that measured peer values in the context of academics, social, employment and community. Three of these measures have a high to moderate Cronbach's Alpha ranging from .8 to .6.

Table 1. Principal Component Factor Analysis of Items Measuring Peer Values (N=1020)

Peer Value Items	Factor 1: Academic	Factor 2: Social	Factor 3: Employment	Factor 4: Community
Attending class	**.725**	.055	-.070	.266
Study	**.616**	.052	-.009	.509
Sports	.133	**.722**	-.024	.247
Grades	**.721**	.101	.067	.333
Be popular	.108	**.771**	.089	.060
Finish high school	**.817**	.020	.114	-.229
Have a boy/girlfriend	-.052	**.539**	.393	.121
Continue education	**.805**	.069	-.003	.090
Do community service	.180	.164	.199	**.732**
Have a job	.059	.004	**.817**	.282
Be together with friends	.291	**.401**	.460	-.320
To party	-.071	**.573**	.500	-.256
To make money	-.001	.165	**.747**	-.069
Factor alpha	.82	.69	.62	

Another set of measures evaluating the quality of peer relationship consist of their peer's plans after high school: having a full-time job and attending a four-year or two-year college (0 = No; 1 = Yes). Examining these plans are important in understanding the social context immigrant youth are embedded in that shape what is important and attainable to them. These measures of peer values and peer plans will evaluate if these norms and values support or impede positive adulthood outcomes.

Social Relationships: School Domain

Leisure time with friends. I include leisure time with friends to gain a comprehensive measure of immigrant youth's relationship with their peers, especially relationships built outside of school structured activities. To measure leisure time with friends, I used a frequency measure of how often the adolescent visited friends in local hang outs, talked on the phone with friends and used a computer at a friend's house (1 = Rarely and 4 = Everyday). These responses were averaged and recoded into an ordinal variable, where higher values indicate the youth is spending more time with friends in different capacities.

Time in extracurricular activities. To examine the amount of time youth are voluntarily invested in activities with their peers and attachment to school, I will utilize a variable which asks youth the number of hours per week spent in extracurricular activities in 10th grade.

Participation in school activities. To capture the intensity and potential access to a wider range of peer and school-related networks, I also created a variable which summed the number of school activities (1 = Yes; 0 = No) students said they participated in during 10th grade. The surveyed activities included: intramural sports, interscholastic sports, school band, school play, student government, academic honor society, school yearbook, school service clubs, school academic clubs, school hobby clubs, and school vocational clubs. This resulted in a maximum value of 11 possible activities to participate in on this measure.

Supportive teacher relationship. The degree to which youth are rooted in their relationships with their teacher and school is affected by their sense of belonging within that context. I include a measure of whether the youth feels put down by teachers in the classroom. The response scale ranges from 1 = Strongly agree to 4 = Strongly disagree, where a higher number indicates a less hostile and more positive teacher-student relationship and therefore a potentially deeper sense of embeddedness in the school.

Work-based program participation. Participation in programs that foster career development is an additional opportunity for immigrant youth to gain resources for a positive occupation pattern. These potential resources could help immigrant youth explore other careers, networks and non-cognitive skills that are vital in shaping their educational and occupation goals. ELS surveys if youth have participated in the cooperative-education, an internship, job shadowing, work-site visits mentoring, or school-based enterprises. I measure if (0 = No; 1 = Yes) youth have participated in any of these work-based programs.

Social Relationships: Community Domain

Community participation. Civic engagement is a vital part of the transition from adolescence to adulthood. Throughout this transition civic engagement allow for youth to become aware of social and political issues, consume news media and form new social networks that can build social capital and connect to further educational and occupational opportunities. However there may be differential returns for community participation, as for example high school drop outs have a significant reduced rate of adult civic engagement, while young adults with college experiences are much more civically engaged than those who did not attend college—this reflects an ongoing accumulated advantage (Flanagan & Levine, 2010). I measure if youth have performed unpaid volunteer work (0 = No; 1 = Yes) for all three main periods of adolescence, early adulthood and adulthood.

Early Adulthood Education, Work and Family Patterns

Modeling from the educational and occupational pathways constructed by ELS in their Third Follow Up Report (2014), I create a nominal variable of early adulthood pattern from the current employment and enrollment status of immigrant youth in 2006. Using *egen group* in STATA 12, I am able to generate a composite of categorical variables (i.e. employment status and enrollment status) with no data loss. The categories are 1 = Working for pay, not enrolled; 2 = Enrolled, not working for pay; 3 = Working for pay and enrolled; and 4 = Neither working for pay nor enrolled (i.e. unemployed or out of the labor force).

Family formation patterns are additionally important in evaluating the adulthood patterns of immigrant youth, especially early childbearing. I measure if the immigrant youth has at least one biological child in 2006 (1 = Yes, 0 = No).

Adulthood Outcomes

Educational attainment. I create an ordinal variable of the highest level of education completed as of 2012. As ELS places emphasis on the educational pipeline, this variable ranges from 1 to 9, including for example categories that differentiate from "high school credential, no post-secondary attendance" with "some post-secondary attendance, no post-secondary credential."

Employment income. To analyze employment outcomes in adulthood I examine the annual income of employed immigrant adults. Since this measure is highly skewed, I log income in all analyses.

Civic engagement. The third adulthood outcome measuring well-being is if the immigrant adult voted in either the Presidential election in 2008 or a local, state or national election between 2009 and 2011. These were self-reported in 2012.

Individual Characteristics and Family Background

To explore whether there are racial/ethnic and sex differences in social embeddedness and the various outcomes, I disaggregated the second generation immigrant sample into racial groups of Asian, Black, Hispanic, Other and White. As discussed previously, there are comparable Asian- and Hispanic-origin immigrant groups in the ELS dataset. Additionally, the dataset has subgroup data available for both pan-ethnic groups which I can access in the restricted data files.

Since family background is related to both the kinds of social relationships youth have as well as their educational and occupational outcomes, I include several measures of parental human capital and family structure. This study includes measures of parent's education, family income, number of people living in the household, and an indicator of whether the parent has low English fluency.

Neighborhood Context

This study also examines the role neighborhood context in adolescence plays in shaping embeddedness among second generation immigrant youth as well as their transition to adulthood. To

create a measure of neighborhood quality, I link the residential zip-code files of survey respondents in the baseline ELS survey in 2002 with 2000 Census level data. To identify adolescents living in economically disadvantaged that are potentially isolated from mainstream American society, I create a "neighborhood disadvantage" index included the percent below poverty, percent unemployment and percent foreign-born in the neighborhood. The Cronbach's Alpha for this index is .74. While there are debates about the effect of immigrant concentration on youth development, and some evidence that immigrant households as a group tend to live in lower-quality areas, the inclusion of percent foreign-born as an indicator of disadvantage is relevant for my immigrant youth sample and testing of my theoretical framework that incorporates segmented assimilation theory (Graif & Sampson, 2010; Rosenbaum & Friedman, 2001). High immigrant concentrations may be highly segregated as a result of discrimination and can trap families under disadvantaged conditions that restrict social mobility (Borjas, 2000); on the other hand, these ethnic neighborhoods may be resources with highly connected networks, ethnic solidarity and social control (Chiswick & Miller, 2005). However, segmented assimilation theory argues that concentrations of immigrants who are also concentrated in disadvantaged areas may expose immigrant youth to an "urban class" that may negatively impact upward progress (Rosenbaum & Friedman, 2001). The index measures the contextual effect of immigrant concentration along with disadvantage indicators of poverty and unemployment.

In addition, I also include a measure of whether the parent feels attached to the community in order to provide a subjective measure of potential access to social capital for youth. In 2002, youth's parents were asked whether they *feel like they are a part of the community* = 1 or if the neighborhood is *just a place to live in* = 0. Migration exposes families to a great range of changes in their social context as they learn to live in a new environment, including a loss of family-peer networks and potential economic and social segregation. Building a new community with Americans is a salient new challenge for immigrant families and it is important to foster social supports and feel a part of a network (Perreira, Chapman, & Stein, 2005).

Statistical Analyses

There are three main goals to this study. First, to examine the quality of social relationships among second generation adolescents and the influence of neighborhood and family background on the quality of those relationships. Second, to determine whether the quality of social relationships are related to early education, work and family patterns during the transition to adulthood, after taking into account family background. Third, to analyze whether and how the quality of social relationships during adolescence are related, to adult status attainment and well-being measured ten years later.

Question 1: What is the quality of social relationships, including intensity (frequency of interaction) and access to potential and actual resources, among second generation immigrant adolescents with peers and

parents, and within schools and communities? On average, does the intensity and quality of social relationships vary by racial and ethnic background and for males and females?

In order to answer the first research question, I conducted descriptive, inferential and regression analysis. The descriptive analyses were conducted on intensity and quality of social relationship variables across peer, family, school and community domains. Next, I conducted an independent sample t-test to examine whether there are mean differences in the time spent on extracurricular activities between males and females and for different racial and ethnic groups. All other measures of social relationships are either nominal or dichotomous, so I conducted a contingency table analysis to determine whether there are significant differences between these groups for these measures.

Question 1b: Does neighborhood composition (ethnic and racial, SES, unemployment) and family background (household arrangements, parent English fluency, parent SES) in adolescence influence the quality of second generation immigrant adolescent social relationships?

To answer this question, I conducted a bivariate correlational analysis to examine whether the intensity and quality of social relationships among second generation youth are associated with individual characteristics, family background, and neighborhood conditions measured during adolescence. Next, I conducted a series of multiple regression analyses to examine the individual and collective impact of individual, family and neighborhood characteristics in explaining variation in the intensity and quality of social relationships in adolescence across the four domains.

There are 20 continuous and dichotomous variables which tap into the quality and intensity of social relationships (see Appendix A). Ordinary least squares regression analyses were conducted to examine the continuous social relationship outcomes (i.e., time spent and number of extracurricular activities; composite measures of peer academic, social, employment and community values; parent-child communication; intergenerational closure). Each of the continuous outcomes were regressed on race, ethnicity, sex, parent's educational attainment, family income, parent's low English fluency, household composition, neighborhood disadvantage and community integration.

Logistic regression analyses will be conducted to examine whether the individual characteristics, family background, neighborhood composition are related to dichotomous social relationship outcomes (i.e., gone to friend, school or family for college information; work-based program participation, community participation; desire for parent's, family and/or friends for youth to attend college).

The variable which asks youth whether it is important for them to live close to parents/relatives after high school has only three categories (1 = not important, 2 = somewhat important, 3 = very important). For this outcome, I used multinomial regression analysis to examine whether individual, family and neighborhood characteristics are related to differences among immigrant youth in the importance they place on living close to their immediate and extended family. The ordered logistic

regression model is appropriate when the value of the dependent variable is more than 2 categorical values and there is some order to the responses. I examined this outcome using ordered logistic regression.

If the test is significant, the proportional odds assumption does not hold and multinomial regression will be conducted. In multinomial regression, all of the coefficients for the last category of the dependent variable (in this case, very important) are set to zero. In this example, two sets of coefficients are produced for each explanatory variable. These coefficients are interpreted as the log-odds of saying living close to parents is not important versus very important and the log odds of saying living close to parents is somewhat important versus very important.

Question 2: Does the quality of social relationships, family background, and neighborhood composition during adolescence affect early education, work, and family formation patterns during the transition from adolescence to early adulthood (i.e., ages 19-21)? And if so, does the relationship vary by racial and ethnic background and for males and females?

There are three variables which capture the early education, work and family patterns when respondents are between 19 and 21 years old: 1) a dummy variable which indicates whether the youth graduated high school on time and with a regular diploma, 2) a categorical variable which combines information about their current work and education status, and 3) a dummy variable indicating whether the young adult had at least one biological child. A series of hierarchical regression analyses were conducted on each of the five early outcomes with race, ethnicity and sex entered into the first model, family education, income, English fluency and composition entered into the second model, neighborhood characteristics entered into the third model and the variables measuring intensity and quality of social relationships entered into the final model.

To analyze the two dichotomous early outcomes of high school completion and having a child logistic regression analyses were conducted. The early education and employment patterns are captured in a categorical variable where 1 = Working for pay, not enrolled in post-secondary; 2 = Enrolled, not working for pay; 3 = Working for pay and enrolled; 4 = neither working for pay nor enrolled. This outcome will be analyzed using multinomial regression. As in the previous set of analyses to answer the first research question, I examined whether sex and race, ethnic background moderate the relationship between social relationships and early adult outcomes.

Question 3: Is the quality of social relationships during adolescence related to adult status attainment (postsecondary education, income) and well-being (civic participation)? And if so, is the relationship mediated by early education, work and family patterns? Are there differences in these relationships by racial and ethnic background and for males and females?

To estimate if the quality of social relationships in adolescence is related to adult status attainment and well-being, I perform hierarchical regression analyses on each adulthood outcome. For educational attainment, an ordinal logit regression was performed; for employment income (natural log), ordinary least squares regression was performed; and for civic engagement, logit regression was performed. To determine whether early educational occupational pathways and family formation mediate the relationship between individual, family and neighborhood background and adult attainment, I enter the variables into the regression models for each adult outcome as follows: individual characteristics (Model 1), family, and neighborhood factors (Model 2); measures of social embeddedness during adolescence (Model 3); early education, work and family patterns (Model 4). The categorical variable which measures early education and work status in young adulthood will be recoded into three dummy variables that indicate early status: working for pay, not enrolled in post-secondary = 1; otherwise = 0; working for pay and enrolled = 1; otherwise = 0; neither working for pay nor enrolled = 1; otherwise = 0, the comparison or reference category in the regression model will be young adults who were enrolled in post-secondary but not working for pay. The categorical variable which measures early living arrangements in young adulthood will also be recoded into a series of dummy variables: lives alone = 1, otherwise = 0; lives with partner = 1, otherwise = 0; other living arrangement = 1, otherwise = 0 (the reference category is living in parent's home). The dichotomous variable of having a child (1 = yes; 0 = no) in early adulthood is also included in the early family patterns. Estimating these regressions allowed me to determine whether the intensity of social relationships during adolescence have a direct effect on adult outcomes and the extent to which early social relationships are mediated through early work, education and family patterns.

Chapter Four: Social Embeddedness of Second Generation Immigrant Adolescents Intensity and Quality of Social Relationships Across Four Domains by Race and Sex

My first research question addresses the quality of social relationships—including intensity and access to resources—among second generation immigrants during adolescence with peers and parents, and within schools and communities. Additionally, I examine whether the intensity and quality of social relationships during this developmental period vary by racial background and for males and females. Table 2 presents the results from the independent t-test comparing social embeddedness between males and females and across racial/ethnic groups. I examined the intensity and quality of social relationships across four domains: family, peer, school and community.

Intensity and Quality of Family Relationships

To measure the frequency and context of interactions second generation immigrant youth have with their family members, I have five measures, including: parent-child communication, youth's value of living close to home, the mother's aspiration for the youth to attend college, if youth obtained college entrance information from a family member, and intergenerational closure. Parent-child communication indicates a frequency and quality of parental relationship that could support school and educational goals. The topics of discussion surveyed include talking about school courses, things studied in class, prepping for ACT or SAT and current events. Second generation immigrant youth on average "sometimes" discuss these topics with their parents (M = 1.08, SD = .5, 1 = Sometimes). Female immigrant youth (M = 1.2, SD = .02, p<.05) report discussing these topics slightly more frequently than male immigrant youth (M = 1.1, SD = .02). Among racial and ethnic groups, Black (M = 1.2, SD = .05, p<.05) and White (M = 1.2, SD = .03, p<.05) immigrant youth report having more of these discussions compared to all other ethnic groups; Hispanic immigrant youth report discussing these topics less than the other racial/ethnic groups (M = 1.0, SD = .03, p<.05).

Measuring how important it is for immigrant youth to live close to home allows for an understanding of how strong their family ties are, which tend to lower geographic mobility and could affect labor force participation or other economic outcomes (Alesina & Guiliano, 2010). Overall, second generation immigrant youth rated the importance of living close to parents or relatives as "somewhat important" (M = 1.1, SD = .64, 1 = Somewhat important). Male immigrant youth rated this family value as significantly lower (M = 1.1, SD = .02, p<.05) compared to female immigrant youth (M = 1.2, SD = .02). Hispanic immigrant youth said it was more important for them to live closer to their family compared to other racial and ethnic groups (M = 1.2, SD = .02, p<.05). White immigrant youth rated this family value as lower compared to other racial and ethnic groups (M = 1.1, SD = .04, p<.05).

In examining immigrant youth's perception of whether their mother aspires for them to attend college, results indicate that overall second generation mothers have high educational aspirations for their

children (*M* = .85, *SD* = .35) and interestingly there were no significant differences between sons and daughters. Among racial and ethnic groups, however, a much higher percent of Asian immigrant youth reported that their mothers aspired for them to go to college compared to other groups(*M* = .90, *SD* = .01, p<.05). Hispanic youth reported the lowest maternal college aspirations compared to other groups (*M* = .79, *SD* = .01, p<.05), though a substantial majority of youth still thought their mothers wanted them to go to college.

The overarching idea of social embeddedness is to focus not only on the nature and significance of relationship ties but their role in shaping access to resources. Thus, while parental educational aspirations may support immigrant youth in pursuing the goal of high school and post-secondary educational attainment, having access to resources should render this goal more attainable. Therefore, I also examine two other items which tap into the quality of relationships youth have with their families including access to college information and intergenerational closure. A majority (87 percent) of the sample relied on information they obtained from their high school about applying for and attending college. A lower percent report going to their families for college information (71 percent) and only 65 percent report going to friends for this kind of information. Asian immigrant youth reported being more likely to reach out to a family member for college entrance information (*M* = .76, *SD* = .02, p<.05), and Hispanic immigrant youth reported being less likely to do so compared to other racial groups (*M* = .65, *SD* = .02, p<.05).

Lastly, I include a measure of intergenerational closure to understand the diversity of social networks connecting peers and parents, and the possible transfer and reinforcement of norms and values within these networks. Immigrant youth were asked about three friends, if they knew the friend's parents (0=No; 1=Yes) and if their parents knew the friend's parents (0 = No; 1 = Yes). Summed together the scale ranges from 1 to 6, with 6 being the highest intergenerational closure, where the immigrant youth and their parents knew all three of the friend's parents. The overall mean for second generation immigrants during adolescence is 3.3. Female immigrant youth reported having significantly greater intergenerational closure (*M* = 3.5, *SD* = .07, p<.05) compared to male immigrant youth (*M* = 3.0, *SD* = .06). White immigrant youth reported having the highest (*M* = 3.9, *SD* = .12, p<.05) and Black immigrant youth (*M* = 2.9, *SD* = .20, p<.05) reported having the lowest intergenerational closure compared to all other racial and ethnic groups.

Intensity and Quality of Peer Relationships

To gain a comprehensive measure of immigrant youth's social relationship with their peers, I measured leisure time with friends outside of school structured activities. Overall, second generation immigrant adolescents spend about once a week visiting friends in local hang outs, talking with friends on the phone or using the computer at a friend's house (*M* = 2.5, *SD* = .6). Male immigrant youth (*M* = 2.4,

SD = .02, p<.05) report spending slightly less leisure time with friends compared to female immigrant youth (*M* = 2.5, *SD* = .02, p<.05). Among racial and ethnic groups, Asian immigrant youth spend less leisure time with friends (*M* = 2.4, *SD* = .03, p<.05) and White immigrant youth report spending more (*M* = 2.8, *SD* = .04, p<.05) time with friends.

Peer relationships can be influential in the values and goals of second generation immigrant youth. In addition to measures of relationship intensity, I assess the quality of these relationships through items (i.e. valuing academics, social time, employment and community) peers feel are important and their plans after high school. Of the four items, second generation immigrant youth reported academics as the highest value that is important to their friends (*M* = 1.5, *SD* = .42; 2 = very important). This value includes attending classes, studying, getting good grades, finishing high school and continuing their education. Compared to female immigrant youth (*M* = 1.6, *SD* = .01, p<.05), male immigrant youth reported that academics was less important to their friends (*M* = 1.4, *SD* = .02). Among racial and ethnic groups, Asian immigrant youth reported their friends valued academics more compared to other racial groups (*M* = 1.6, *SD* = .01, p<.05). Hispanic immigrant youth reported their friends valued employment more compared to other racial groups (*M* = 1.3, *SD* = .02, p<.05). Overall, the value reported as the least important to friends was doing community service (*M* = .70, *SD* = .67). While there were no significant differences between racial/ethnic groups in valuing community service, however, male immigrant youth reported their friends valued community service significantly less (*M* = .63, *SD* = .02, p<.05), compared to reports by female immigrant youth (*M* = .78, *SD* = .02).

In addition to values peers find important, examining peer's plans after high school is important to understanding the social context immigrant youth are embedded in that shape what is important and attainable to them. *Planning* holds a different level of significance than *valuing*, for example, college and academics as the former connotes thinking of specific steps and taking action to achieve them. Of the three possible plans questioned—attending a four year college, attending a two year college, obtaining a full-time job—second generation immigrant youth reported at the highest frequency that their friends planned to attend a four year college (*M* = 2.4, *SD* = 1.0, 3 = Most friends plan to attend a four year college). Compared to male immigrant youth (*M* = 2.2, *SD* = .03), female immigrant youth report having more friends who plan to attend a four year college (*M* = 2.5, *SD* = .03, p<.05). Among racial and ethnic groups, Asian immigrant youth (*M* = 2.7, *SD* = .04, p<.05) followed by Black (*M* = 2.6, SD = .09, p<.05) and White (*M* = 2.6, *SD* = .06, p<.05) immigrant youth reported a higher frequency of friends who plan to attend a four year college after high school. Hispanic immigrant youth report having a lower number of friends who have attending a four year college as a plan after high school (*M* = 2.0, *SD* = .04, p<.05).

Lastly, I also measure if second generation immigrant youth went to their friends for information on college enrollment. Compared to male immigrant youth (*M* = .61, *SD* = .02), on average female

immigrant youth are more likely to go to their friends for college entrance information (*M* = .68, *SD* = .02, p<.05). Among racial group average differences, Asian immigrant youth went more frequently to their friends, while Hispanic and White immigrant youth were less likely to reach out to their friends for college entrance information.

Intensity and Quality of School Relationships

Research has found that supportive relationships with teachers and school adults can contribute to academic engagement and academic success of immigrant youth (Green, Rhodes, Hirsh, & Squrez-Orozco, & Camic, 2008). Second generation immigrant youth as a group average are embedded in a non-hostile, supportive teacher and classroom environment (*M* = 3.1, *SD* = .68). There are no mean differences by male or female, or by race and ethnicity.

To capture the intensity and potential access to a wide range of immigrant youth's school-related networks with their peers, I examined the amount of time youth voluntarily invested in school activities and the number of school activities youth participated in. During adolescence, second generation immigrant youth participated in about one school activity (*M* = .9, *SD* = 1.3) and spent just under four hours per week on extracurricular activities (*M* = 3.7, *SD* = 5.1). There were no mean differences in time spent on extracurricular activities between males and females and for racial and ethnic groups. While there were no group differences in time, males (*M* = .74, compared to females *M* = 1.2) and Hispanic youth (*M* = .70, *SD* = .05) participated in less school activities. Asian second generation immigrants (*M* = 1.2, *SD* = .06) reported participating in a higher number of school activities.

Another school measure that taps into the resources available within school networks is participation in work-based programs, such as cooperative-education, an internship, job shadowing or work-site visits and mentoring. Second generation immigrant youth reported low participation at 39 percent in any one of these work-based learning experience programs (*M* = .39, *SD* = .48). Female immigrant youth reported a higher participation (*M* = .44. *SD* = .02, p<.05) in these work-based program compared to male immigrant youth (*M* = .34, *SD* = .02). Among racial and ethnic group differences, Hispanic immigrant youth had lower participation compared to all other groups (*M* = .35, *SD* = .02, p<.05).

Community Relationships

Civic and community engagement support may be one important way immigrant youth develop their identity and shape their own social networks. Volunteering in the community may increase awareness of social and political issues as well as enable youth to form new social ties that could connect them to further educational and occupational opportunities. As there can be differential returns for community participation at different ages, I measure this adolescent participation level during high school. About 70 percent of second generation immigrant youth performed unpaid volunteer work during

their second year of high school or fourth year of high school. Female immigrant youth participate in their community significantly in greater numbers than second generation immigrant males (M = .77, compared to males M = .63). There were significant differences between racial groups, with 80 percent of Black immigrant youth reporting that they volunteered in their communities compared to 61 percent of Hispanic youth.

Table 2. Descriptive Statistics of Intensity and Quality of Social Relationship Variables Across Racial Groups and by Sex

	Male	Female	Asian	Black	Hispanic	White	Other
Family Domain							
Parent-Child Communication	1.0 (.01) [1]	1.2 (.01) [1]	1.0 (.02)	1.2 (.05) [3]	1.0 (.02) [4]	1.2 (.03)[5]	1.0 (.04)
Valuing Living Close to Home	1.1 (.02) [1]	1.2 (.02) [1]	1.2 (.02)	1.1 (.06)	1.2 (.02) [4]	1.1 (.04)[5]	1.0 (.05)[6]
Mother College Aspiration for Youth	.83 (.01)	.86 (.01)	.90 (.01)[2]	.91 (.03)	.79 (.01)[4]	.82 (.02)	.85 (.04)
College Entrance Info from Family	.69 (.02)	.74 (.02)	.76 (.02)[2]	.74 (.05)	.65 (.02)[4]	.70 (.03)	.81 (.04)[6]
Intergenerational Closure	3.0 (.06)[1]	3.5 (.07) [1]	3.1 (.08)[2]	2.9 (.20)[3]	3.2 (.08)	3.9 (.12)[5]	3.3 (.19)
Peer Domain							
Leisure Time with Friends	2.4 (.02) [1]	2.5 (.02) [1]	2.4 (.03) [2]	2.3 (.07)	2.4 (.02)	2.8 (.04) [5]	2.5 (.06)
Peers Value Academics	1.4 (.01) [1]	1.6 (.01) [1]	1.6 (.01) [2]	1.6 (.05)	1.5 (.02) [4]	1.5 (.03)	1.4 (.04)[6]
Peers Value Social Engagement	1.2 (.02) [1]	1.0 (.01) [1]	1.0 (.02) [2]	1.2 (.06)	1.1 (.02)	1.2 (.03) [5]	1.0 (.04)
Peers Value Employment	1.3 (.02) [1]	1.1 (.02) [1]	1.1 (.02) [2]	1.3 (.06)	1.3 (.02) [4]	1.1 (.04)	1.1 (.06)
Peers Value Community Engagement	.63 (.02) [1]	.78 (.02) [1]	.72 (.03)	.77 (.09)	.72 (.03)	.65 (.04)	.60 (.07)
Peers Plan for Full-Time Job	1.4 (.04) [1]	1.2 (.03) [1]	1.0 (.04) [2]	1.1 (.10)	1.6 (.04) [4]	1.4 (.07)	1.4 (.10)
Peers Plan for Community College	1.6 (.03)	1.5 (.03)	1.3 (.04) [2]	1.5 (.09)	1.7 (.04) [4]	1.5 (.06)	1.6 (.09)
Peers Plan for Four-year college	2.2 (.03) [1]	2.5 (.03) [1]	2.7 (.04) [2]	2.6 (.09) [3]	2.0 (.04) [4]	2.6 (.06) [5]	2.3 (.09)
College Entrance Info from Friends	.61 (.02)[1]	.68 (.02) [1]	.75 (.02)[2]	.55 (.05)	.58 (.02)[4]	.59 (.03)[5]	.67 (.06)
School Domain							
Supportive Teacher Relationship	3.1 (.02)	3.1 (.02)	3.1 (.02)	3.1 (.07)	3.1 (.02)	3.1 (.04)	3.1 (.05)
Time in Extracurricular Activities	3.9 (.19)	3.6 (.17)	3.8 (.21)	4.1 (.57)	3.3 (.22) [4]	4.0 (.31)	4.3 (.55)
Participation in School Activities	.74 (.04)[1]	1.2 (.04) [1]	1.2 (.06)[2]	.92 (.13)	.70 (.05)[4]	1.1 (.08)	.78 (.10)
College Entrance Info from School	.86 (.01)	.88 (.01)	.87 (.01)	.90 (.03)	.88 (.02)	.84 (.02)	.85 (.04)
Work-Based Program Participation	.34 (.02)[1]	.44 (.02) [1]	.42 (.02)	.41 (.05)	.35 (.02)[4]	.41 (.03)	.40 (.05)
Community Domain							
Community Participation during HS	.63 (.02)[1]	.77 (.02)[1]	.78 (.01)[2]	.80 (.04)[3]	.61 (.02)[4]	.71 (.03)	.68 (.04)

[+]p<.10. *p<.05. **p<.01. ***p<.001

Parentheses hold Standard Errors for continuous variables

[1] Independent group t-test between male and female is significant at p< .05

[2] Difference between Asian and all other groups significant at p <.05

[3] Difference between Black and all other groups significant at p <.05

[4] Difference between Hispanic and all other groups significant at p <.05

[5] Difference between White and all other groups significant at p <.05

[6] Difference between Other and all other groups significant at p <.05

These results indicate that during adolescence, second generation immigrant youth are embedded in their relationships with peers and their parents, and within schools and their communities. The results also show significant variation between males and females, and across racial and ethnic groups. Within the family domain, the majority of immigrant youth report engaging in discussions with their parents about school, going to college and current events "sometimes" and "somewhat" valuing living close to home. Second generation immigrant girls have significantly more discussions with parents and value living closer to home more than immigrant boys. The majority of immigrant youth reported that they perceive their mothers as having the desire for them to attend college and no differences were found across racial and ethnic groups and for males and females. Immigrant youth reported seeking out information about applying for and attending college primarily from resources within their schools and to a lesser extent from family members and friends. In addition, a majority of immigrant youth report having peers who value academics and plan to attend a four-year college after high school. Second generation immigrant youth also generally report having a supportive relationships with their teachers in class. Finally, youth are participating on average, in at least one school activity and a majority volunteer in their communities during high school. However, only a small number of immigrant youth participate in work-based learning programs that link school with career exploration, such as internships.

Chapter Five. The Influence of Family and Neighborhood on Social Relationships in Adolescence

In the previous chapter, I gave a picture of what social embeddedness looks like among second generation youth across four domains: family, peers, school and communities. The opportunity to build social relationships and the context of these networks and resources may be shaped by family and neighborhood conditions. In this chapter, I use data from the ELS and the U.S. Census (2000) to compare the neighborhoods in which second generation immigrant youth are embedded with those of a comparable non-immigrant youth sample. I also examine whether family background and neighborhood composition are associated with variation in social embeddedness across all four domains among second generation immigrant youth using multiple regression analysis.

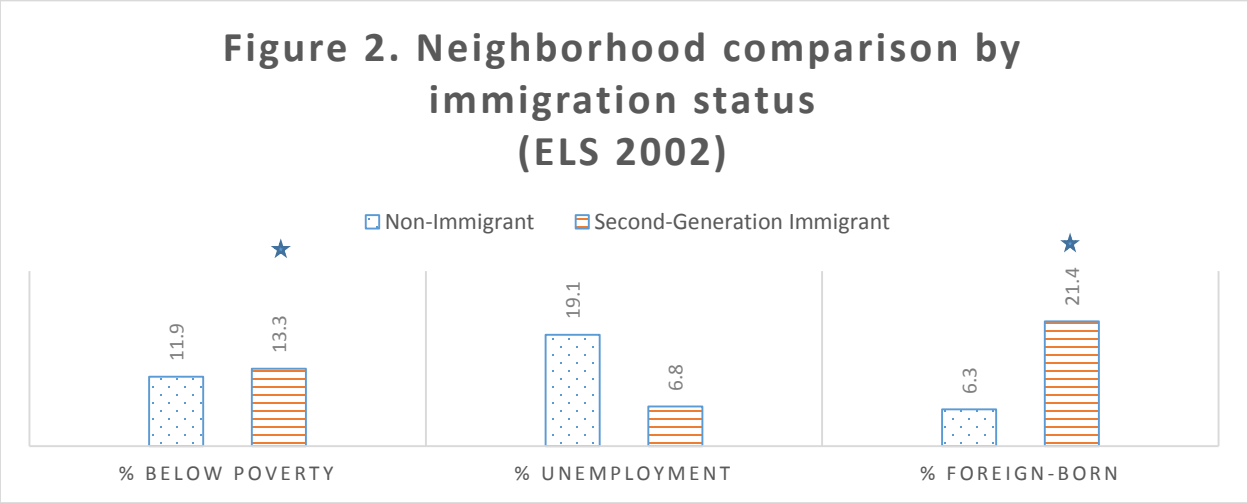


Figure 2 compares the neighborhoods of non-immigrant and second generation immigrant tenth graders in the ELS across three dimensions: percent unemployed, percent of families in the neighborhood below the poverty line and percent of residents who are foreign-born. The results show that second generation immigrant adolescents are slightly more likely to live in more impoverished neighborhoods compared to non-immigrant youth but are also embedded in neighborhoods with a much lower percent of residents who are unemployed. Indeed, the percent unemployed in the neighborhood is almost three times higher among non-immigrant versus immigrant youth. As expected, second generation immigrant youth are also much more likely to be in neighborhoods with a higher concentration of foreign born residents.

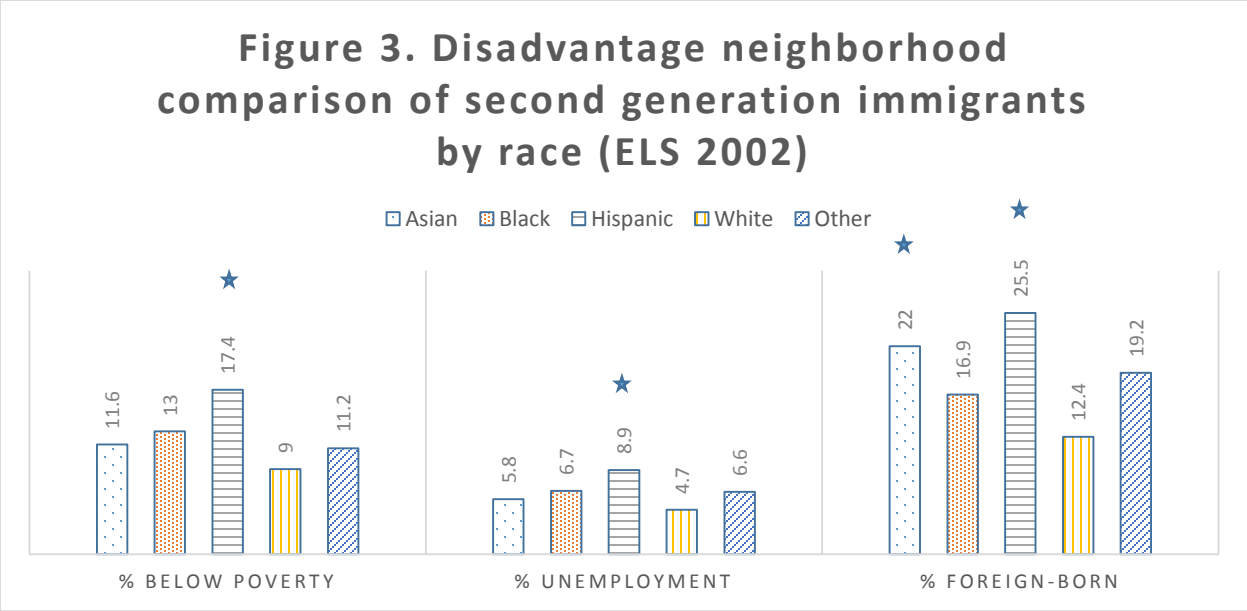


Figure 3 examines whether there are racial and ethnic differences among the second generation immigrant youth sample across these neighborhood conditions. The results indicate that Hispanic second generation immigrants are more likely to live in impoverished neighborhoods during adolescence compared to other racial and ethnic immigrant groups. On average, Hispanic second generation youth live in neighborhoods where almost 1 in 5 households are below the poverty line. Hispanic immigrant youth in my sample also live in neighborhoods with the highest concentration of unemployed. By comparison, White second generation youth live in neighborhoods with the lowest poverty and unemployment rate of all the racial groups and at rates that are almost 50 percent lower than for Hispanic second generation youth.

In terms of ethnic composition of the neighborhood, Hispanic second generation youth are living in neighborhoods where on average 1 in 4 residents are foreign-born. Asian second generation immigrant adolescents have the next highest percent of foreign born, living in neighborhoods where on average, 22 percent of residents are foreign-born. As discussed early, these results demonstrate the diversity of immigration factors and resources that may pull immigrant families into a wide range of neighborhoods.

Next, I conduct a series of multiple regression analyses to determine the influence of family and neighborhood characteristics on the quality of social relationships during adolescence of second generation immigrant youth. Tables 3 through 6 present the results from analyses of items indicative of each domain of social relationships during adolescence: family, peer, school and community on individual, family and neighborhood characteristics. The family and neighborhood measures are entered hierarchically into the models to examine whether they are significantly related to social embeddedness.

My research question here aims to understand the individual and collective influence of neighborhood and family background on the intensity and quality of social relationships across domains during adolescence.

Family Domain

Table 3 presents the analysis of individual, family and neighborhood characteristics on the intensity and quality of immigrant youth's relationships and resources within the family domain. The first model includes sex, race/ethnicity and family background including maternal education, household income, number of people living in the household and a dichotomous measure of whether the youth's parents have low English fluency. The second model examines the relationship between the objective measure of neighborhood disadvantage (index of percent unemployed, percent below poverty and percent foreign-born) and a subjective measure of sense of community. This measure evaluates if the immigrant family feels they are a part of the community or if the community is "just a place to live." The final model includes the individual, family and neighborhood measures together to examine the collective and unique association between these factors and social embeddedness among second generation youth. In analyses where the outcome is continuous (i.e., index of quality of parent-child communication) ordinary least squares regression was performed. In analyses where the outcome is dichotomous (i.e., mother aspires for youth to attend college) or ordinal rather than continuous, logistic regression models are estimated and the odds ratios are presented to ease interpretation. If an odds ratio is equal to 1, then an event is equally likely under both situations—the event and situation are independent of one another. However, if the odds ratio is greater than 1, the event with the first odds is more likely. In the example of mother's aspiration for college, where 0 = No and 1 = Yes, if the odds ratio is greater than one than the immigrant youth is more likely to report maternal college aspirations. If the odds ratio is less than 1, the immigrant youth is more likely to report their mother does not have college aspirations for them.

Models 1 to 9 presents the results from the regression, logit and ordinal logit analyses of 5 measures of social embeddedness at the family level: Parent-Child Communication, Value Living Close to Home, Mother College Aspiration, College Information from Family, and Intergenerational Closure. Two of the outcomes are dichotomous: whether respondent believed his mother desired for them to go to college and whether the respondent received information on applying to and attending college and with 1=yes; 0=no and logistic regression models were estimated. The measure of intergenerational closure ranges from 1 to 6, where the higher number is increased number of relationships with immigrant youth's friend's parents, so ordinal logistic models were estimated.

The first set of results presented regress Parent-Child Communication onto individual, family and neighborhood conditions (Models 1-3). The results in Model 1 show immigrant sons, on average, have fewer discussions with parents compared to daughters. In addition, maternal education is significantly and positively associated with how often parents and their second generation youth discuss topics including

academics and college preparation. Household size also matters, with larger households associated with fewer discussions with parents. Model 2 adds neighborhood conditions. In general, living in disadvantaged neighborhoods is associated with poorer parent-child communication and the measure of community integration while positive fails to reach significance. In Model 3, when all three groups of variables are added to the model, neighborhood disadvantage is reduced and becomes non-significant. Adding neighborhood characteristics to the model does little to change the magnitude of the individual and family characteristics with the exception that the greater parental communication among Black youth compared to Hispanic youth increases in magnitude and is now significant. This suggests that once you take into account the disadvantaged neighborhood conditions that Black and Hispanic youth live in, Black youth have better communication with their parents compared to Hispanic youth.

In examining whether second generation immigrant youth value living close to home a few interesting results emerge (Models 4-6). On average, girls value living close to home more than boys, after taking into account family background. As mother's educational attainment increases, valuing living near home decreases. The value of living close to family also increases with household size (Model 4). Neighborhood disadvantage increases the likelihood that immigrant youth will value living close to home (Model 5), though again, this relationship is reduced in Model 3 with the addition of individual and family characteristics (Model 6).

Models 7-9 present the odds ratios for the logistic regression models predicting whether the youth reported that their mother desired for them to go to college. Again, there are significant differences between boys and girls. Second generation immigrant boys are significantly less likely than girls to report that their mother holds college aspirations for them, controlling for family background. As we saw in the t-tests, Asian immigrant youth report higher maternal college aspirations compared to Hispanic youth, and this advantage remains even after controlling for family background and neighborhood characteristics. Specifically, the odds of having a mother with college aspirations are 80 percent higher for Asian youth than for Hispanic youth.

There are also significant gender differences in whether youth receive information about college from their families (Models 10-12). The odds that second generation boys report that they got college information from their family is .74 times that of girls (or 26 percent lower). There are no other significant differences in the final model other than the effect of parent's poor English. The odds youth obtained college information from their parents is decreased by a factor of .67 when parents have low English fluency compared to moderate or high fluency (Model 12).

Models 13-15 in Table 3 present the final set of coefficients from the ordinal logistic regression model of intergenerational closure. We can see there are significant differences between boys and girls with second generation boys again having lower odds than girls of experiencing greater intergenerational

closure (Model 15). However, Asian immigrant youth have less closure compared to Hispanic youth. Like the results for college information, youth whose parents have low English fluency experience less intergenerational closure than youth whose parents have moderate or high fluency (Model 15). Community integration is positive and significant. Immigrant families that feel they belong in their neighborhood are more likely to know the parents of their children's friends, controlling for family characteristics.

Table 3. Regression Analysis of Family and Neighborhood Characteristics on Social Relationships: Family Domain

	Parent-Child Communication			***Value Living Close to Home***			***Mother College Aspiration (1=yes)***		
	B (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	Odds Ratio (SE)	Odds Ratio (SE)	Odds Ratio (SE)
Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Male	-.14 (.03)***		-.14 (.03)**	-.06 (.02)*		-.05 (.03)	.74 (.11)*		.63 (.11)*
Asian	-.00 (03)		-.00 (.03)	-.01 (.03)		-.03 (.04)	2.0 (.41)*		1.8 (.45)*
Black	.05 (.05)		.16 (.08)*	-.07 (.06)		-.10 (.08)	2.0 (.86)		1.3 (.68)
White	.03 (.03)		.04 (.04)	-.06 (.05)		-.09 (.06)	.86 (.20)		.86 (.25)
Other	-.08 (.07)		-.11 (.08)	-.11 (.06)		-.13 (.06)	1.1 (.37)		1.4 (.57)
Family Characteristics									
Mother's Education	.03 (.00)***		.02 (.00)*	-.02 (.00)*		-.02 (.00)*	1.1 (.04)		.99 (.05)
Household Income	.01 (.00)		.00 (.00)	-.00 (.00)		-.00 (.00)	1.1 (.03)		1.0 (.04)
# People Household	-.03 (.00)**		-.03 (.01)*	.04 (.01)**		.04 (.01)*	.97 (.05)		.97 (.06)
Parent Low English Fluency	-.04 (.04)		-.08 (.05)	.02 (.03)+		-.02 (.04)	.79 (.14)		.63 (.14)
Neighborhood Characteristics									
Disadvantage Index		-.02 (.00)**	-.00 (.00)		.02 (.00)*	.00 (.00)		.93 (.03)*	.98 (.04)
Community Integration		.05 (.03)	.02 (.03)		-.01 (.03)	.02 (.03)		1.2 (.21)	1.1 (.22)

Table 3 (cont.) Regression Analysis of Family and Neighborhood Characteristics on Social Relationships: Family Domain

	College Info from Family			*Intergenerational Closure*		
	Odds Ratio (SE)	Odds Ratio (SE)	Odds Ratio (SE)	Odds Ratio (SE)	Odds Ratio (SE)	Odds Ratio (SE)
Variable	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Male	.78 (.10)		.73 (.11)*	.60 (.05)***		.62 (.06)***
Asian	1.4 (.22)*		1.3 (.25)	.80 (.08)*		.73 (.09)*
Black	1.1 (.30)		1.5 (.68)	.62 (.12)*		.92 (.25)
White	.97 (.18)		.82 (.19)	1.5 (.21)*		1.2 (.22)
Other	1.2 (.31)		1.0 (.30)	.96 (.18)		.96 (.21)
Family Characteristics						
Mother's Education	1.1 (.04)*		1.1 (.05)	1.0 (.02)		1.0 (.03)
Household Income	1.0 (.03)		1.0 (.05)	1.0 (.02)		.98 (.02)
# People Household	1.0 (.04)		1.0 (.05)	.96 (.03)		.96 (.03)
Parent's Low English Fluency	.83 (.12)		.67 (.14)*	.86 (.09)		.75 (.10)*
Neighborhood Characteristics						
Disadvantage Index		.95 (.02)*	1.0 (.03)		.94 (.01)**	.95 (.02)
Community Integration		1.1 (.15)	1.1 (.15)		1.6 (.16)***	1.5 (.02)***

+p<.10. *p<.05. **p<.01. ***p<.001

Peer Domain

Table 4 presents the results from the regression, logit and ordinal logit analyses of 9 measures of social embeddedness at the peer level: Leisure Time with Friends, Peers Value Academics, Peers Value Social Engagement, Peers Value Employment, Peers Value Community, Peers Plan for Full-Time Job, Peers Plan for Two-Year College, Peers Plan for Four-Year College and College Entrance Information from Friends. One of the outcomes are dichotomous: whether the respondent went to their friends for college entrance information and with 1 = yes; 0 = no and logistic regression models were estimated. The three measures of peers' plans range from 0 = None to 4 = All, so ordinal logistic models were estimated.

The first set of results presented regress Leisure Time with Friends onto individual, family and neighborhood conditions (Models 1-3). The results in Model 1 show that second generation boys on average spend less leisure time with friends compared to girls. In additions, household income is significantly and positively associated with how much leisure time immigrant adolescents have with their friends. Model 2 adds neighborhood conditions. Generally, living in disadvantaged neighborhoods is associated with less leisure time with friends and the community integration measure is positive in leisure time spent. Adding neighborhood characteristics to the overall analysis in Model 3 does little to change the magnitude of individual and family characteristics, with the exception that parent's low English fluency increases in magnitude and is now significant. This suggests that once disadvantaged neighborhood conditions are held constant, immigrant youth who have parents with low English fluency engage in less leisure time than immigrant youth with more fluent English speaking parents. As well, the difference among Asian and Black youth increases slightly in magnitude and is now significant. Taking into account neighborhood conditions that Asian immigrant youth live in, they have less leisure time in more disadvantaged neighborhoods than Hispanic immigrant youth.

In examining whether second generation immigrant youth have peers who value academics (e.g. getting good grades, continuing education), a few interesting results emerge. On average, immigrant girls have more peers who value academics than immigrant boys, after taking into account family background. Asian immigrant youth report having more peers who value academics compared to Hispanic youth, and this advantage remains even after controlling for family background and neighborhood characteristics. As mother's educational attainment increases, immigrant youth report having more peers who value academics.

Models 7 to 15 present the regression results for immigrant youth having peers who value social engagement, employment and community. While there are no significant effects of family background and neighborhood characteristics, there are significant gender and racial differences. Again, we see significant differences between immigrant girls and boys for these three peer values. Second generation immigrant boys are more likely to report having peers who value social engagement and employment

than immigrant girls. However, as we saw in the t-tests, immigrant girls report having more peers who value community compared to immigrant boys, and this difference persists with the addition of family background and neighborhood characteristics (Model 15).

There are also significant gender differences in whether immigrant youth have peers who plan for a full-time job after high school (Models 16-18). The odds that second generation boys have peers who plan for a full-time job is 1.4 times that of girls (or 40 percent higher), controlling for family background and neighborhood characteristics. Asian immigrant youth are significantly less likely to report having peers who plan for a full-time job after high school compared to Hispanic youth. Family background and neighborhood characteristics also play a role. The odds that youth have peers who plan for a full-time job is decreased by a factor of .89 and .93 with an increase of mother's education and household income, respectively. Neighborhood disadvantage increases the likelihood that immigrant youth will have peers who plan for a full-time job after high school.

Models 19 to 21 present the odds ratios for the ordinal regression models predicting whether youth reported having friends who plan to attend a two-year college after high school. Interestingly, we do not see differences between immigrant boys or girls. The only racial group difference that emerges is between Asian and Hispanic immigrant youth. Asian immigrant youth are significantly less likely to have peers who plan for a two-year college compared to Hispanic immigrant youth. Similar to the results found for a peer group who plan for a full-time job, an increase in mother's education and household income decreases the odds of having peers who plan to attend a two-year college after high school. Neighborhood disadvantage again appears to increase the likelihood that immigrant youth will have peers who plan to attend a two-year college.

In examining whether immigrant youth have peers who plan for a four-year college, a few interesting results emerge (Models 22-24). We can see that there are again significant differences between boys and girls, with second generation boys having lower odds than girls of having peers who plan for a four-year college after high school, even controlling for family background and neighborhood characteristics (Model 24). Asian, Black and White immigrant youth all have higher odds of a peer group that plans to attend a four-year college compared to Hispanic youth. Like the results for a full-time job and two-year college, family and neighborhood characteristics have a significant effect. As mother's educational attainment increases, immigrant youth have increased odds of having peers who plan for a four year college. However, the odds of immigrant youth having these peers is decreased by a factor of .90 when there is an increase in the number of people in the household (Model 22). Neighborhood disadvantage decreases the likelihood that immigrant youth will have peers who plan for a four-year college by a factor of .88, though community integration is significant and positive in this association

(Model 23). However, this relationship is reduced in the third model with the addition of individual and family characteristics (Model 24).

Models 25-27 in Table 4 present the final set of coefficients from the logit regression models of obtaining college entrance information from friends. The odds that second generation boys report that they got college information from their friends is .70 times that of girls (30 percent lower), controlling for family characteristics and neighborhood characteristics. There are no other significant differences in the final model other than the racial group difference between Asian and Hispanic youth. Asian immigrant youth have significantly higher odds of going to their friends for college entrance information compared to Hispanic youth.

Table 4. Analysis of Family and Neighborhood Characteristics on Social Relationships: Peer Domain

	Leisure Time with Friends			***Peers Value Academics***			***Peers Value Social Engagement***			***Peers Value Employment***			***Peers Value Community***		
	B (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)
Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Male	-.10 (.03)*		-.06 (.04)	-.13 (.02)**		-.15 (.03)*	.17 (.03)*		.17 (.04)	.14 (.03)**		.14 (.03)**	-.11 (.03)**		-.11 (.04)*
Asian	-.08 (.04)		-.11 (.05)*	.06 (.02)**		.06 (.03)*	-.01 (.04)*		-.13 (.05)*	-.12 (.03)*		-.16 (.04)**	.00 (.05)		-.03 (.07)
Black	-.14 (.07)		-.14 (.10)	.02 (.06)		.03 (.07)	.04 (.08)		-.03 (.11)	.04 (.07)		.03 (.10)	-.02 (.08)		-.10 (.11)
White	.17 (.05)*		.10 (.06)	-.00 (.03)		.00 (.04)	-.01 (.05)		-.05 (.07)	-.11 (.05)*		-.13 (.07)	-.09 (.06)		-.14 (.07)
Other	.02 (.07)		-.09 (.08)	-.05 (.00)*		-.02 (.07)*	-.01 (.06)		-.10 (.08)	-.09 (.06)		-.06 (.08)	-.11 (.08)		-.15 (.10)
Family Characteristics															
Mother's Education	.01 (.00)		.01 (.01)	.02 (.00)*		.02 (.00)*	.01 (.00)		.01 (.01)	-.01 (.00)		-.00 (.00)	.00 (.01)		.00 (.01)
Household Income	.02 (.00)*		.00 (.01)	.01 (.00)		.00 (.00)	.01 (.00)		.00 (.01)	-.01 (.00)		-.02 (.01)	-.00 (.00)		-.00 (.01)
# People Household	-.01 (.01)		-.02 (.01)	-.02 (.01)		-.02 (.01)	-.01 (.02)		-.01 (.02)	.01 (.04)		.00 (01)	-.00 (.01)		-.00 (.01)
Parent's Low English Fluency	-.05 (.04)		-.13 (.05)*	.02 (.02)		.05 (.03)	-.02 (.04)		-.03 (.05)	.00 (.04)		-.00 (.04)	.00 (.04)		-.00 (.05)
Neighborhood Characteristics															
Disadvantage Index		-.02 (.00)*	-.01 (.01)		-.01 (.00)	-.01 (.00)		-.01 (.00)	-.01 (.01)		.02 (.00)+	-.00 (.01)		-.00 (.00)	-.00 (.01)
Community Integration		.07 (.04)+	.03 (.04)		.02 (.02)	.01 (.02)		.06 (.04)	.04 (.04)		.01 (.04)	.01 (.04)		.01 (.05)	.03 (.05)

Table 4 (cont.). Analysis of Family and Neighborhood Characteristics on Social Relationships: Peer Domain

Variable	*Peers Plan for Full-Time Job*			*Peers Plan for Two-Year College*			*Peers Plan for Four-Year College*			*College Entrance Info from Friends*		
	OR (SE) Model 16	OR (SE) Model 17	OR (SE) Model 18	OR (SE) Model 19	OR (SE) Model 20	OR (SE) Model 21	OR (SE) Model 22	OR (SE) Model 23	OR (SE) Model 24	OR (SE) Model 25	OR (SE) Model 26	OR (SE) Model 27
Male	1.3 (.12)*		1.4 (.15)*	1.2 (.11)		1.0 (.12)	.62 (.05)**		.62 (.06)**	.73 (.09)*		.70 (.10)*
Asian	.46 (.05)*		.43 (.06)*	.69 (.07)*		.70 (.09)*	2.1 (.24)**		2.0 (.29)*	1.8 (.23)**		1.8 (.31)**
Black	.61 (.12)		.64 (.18)	.85 (.17)		.92 (.28)	1.9 (.39)**		2.0 (.59)	.91 (.22)		.70 (.23)
White	.88 (.13)		.77 (.14)	.92 (.15)		.83 (.15)	1.6 (.24)*		1.8 (.33)*	1.1 (.18)		1.0 (.22)
Other	.87 (.17)		.75 (.17)	1.2 (.25)		1.1 (.25)	1.1 (.22)		1.0 (.03)	1.3 (.34)		1.2 (.37)
Family Characteristics												
Mother's Education	.89 (.02)*		.89 (.02)*	.92 (.02)*		.93 (.03)*	1.2 (.03)*		1.2 (.03)*	1.0 (.03)		1.0 (.04)
Household Income	.93 (.01)*		.93 (.02)*	.93 (.02)*		.95 (.02)	1.0 (.02)*		1.0 (.02)*	1.0 (.02)		1.0 (.03)
# People Household	1.1 (.03)*		1.1 (.04)*	1.1 (.03)*		1.0 (.04)	.90 (.02)*		.93 (.03)*	.99 (.04)		.99 (.05)
Parent's Low English Fluency	.83 (.09)		.88 (.12)	1.0 (.11)		.98 (.14)	1.1 (.12)		1.0 (.14)	1.0 (.16)		.96 (.05)
Neighborhood Characteristics												
Disadvantage Index		1.1 (.02)*	.95 (.02)		1.1 (.02)**	1.0 (.02)		.88 (.02)**	.99 (.02)		.99 (.03)	1.0 (.04)
Community Integration		1.0 (.11)	1.1 (.13)		.96 (.11)	1.0 (.12)		1.3 (.14)*	1.1 (.12)		1.2 (.15)	1.2 (.16)

+p<.10. *p<.05. **p<.01. ***p<.001

School Domain

Table 5 presents the results from the analyses of 5 measures of social embeddedness at the school level: Supportive Teacher Relationship, Time in Extracurricular Activities, Participation in School Activities, College Entrance Info from School and Work-based Program Participation. Two of the outcomes are dichotomous: whether the respondent obtained college entrance information from a school adult and whether the respondent participated in a work-based program, and with 1=Yes, 0=No logistic regression models were estimated. The measure of whether the respondent had a non-hostile, supportive relationship with a teacher ranges from 1=Strongly agree to 4=Strongly disagree, so ordinal logistic models were estimated.

The first set of results presented regress Supportive Teacher Relationship onto individual, family and neighborhood conditions (Models 1 - 3). Second generation immigrant boys are less likely than girls to report a supportive teacher relationship, controlling for family background and neighborhood characteristics. There are no other significant differences in the models.

Models 4 - 5 present the results predicting immigrant youth's intensity in extracurricular activities. Maternal education is significantly and positively associated with how much time second generation immigrant youth spend in extracurricular activities. Household income also matters, with higher income associated with more time spent in extracurricular activities. In addition, immigrant youth with parents who have low English fluency spend significantly less time in extracurricular activities. Model 5 adds neighborhood conditions. In general, living in disadvantaged neighborhoods is associated with less time spent in extracurricular activities by immigrant youth. Community integration has a significant and positive effect on time spent in extracurricular activities. Adding neighborhood characteristics to the final model reduces the significance of the family characteristics and for the effect of disadvantaged neighborhoods. Community integration remains significant and positively effects how much time second generation immigrant youth spend in extracurricular activities.

In addition to examining the intensity of participation, a few interesting results emerge in the analysis of the number of school activities second generation immigrant youth participate in (Models 7-9). On average, immigrant girls compared to boys participate in more school activities, such as interscholastic sports, school band, student government and school service clubs. As mother's educational attainment increases, immigrant youth participate in a higher number of school activities. This number also increases with household income and decreases as the number of people in the household increase. Neighborhood disadvantage decreases the number of school activities immigrant youth participate in, and this effect is reduced but remains significant in Model 9 with the addition of individual and family characteristics.

Models 10 - 12 present the odds ratios for the logistic regression models predicting whether immigrant youth reported going to a teacher, counselor or coach for college entrance information. We do not see significant differences or effects in the models of individual, family or neighborhood characteristics.

Models 13 - 15 in Table 5 present the final set of coefficients from the logit regression model of work-based program participation. Again, we see there are significant differences between boys and girls with second generation boys having lower odds of participating in work-based programs, such as internships and cooperative education programs. Similar to the results of the number of school activities immigrant youth participate in, the number of people in the household immigrant youth live in decreases the odds of work-based program participation. Neighborhood disadvantage as well decreases the odds second generation immigrant youth will participate in a work-based program, though this effect decreases in magnitude and becomes non-significant with the addition of individual and family characteristics.

Table 5. Analysis of Family and Neighborhood Characteristics on Social Relationships: School Domain

	Supportive Teacher Relationship			***Time in Extracurricular Activities***			***Participation in School Activities***			***College Entrance Info from School***			***Work-based Program Participation***		
	OR (SE)	OR (SE)	OR (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Male	.85 (.08)		.81 (.09)+	.16 (.25)		.27 (.31)	-.45 (.06)*		-.51 (.07)*	.86 (.12)		.76 (.13)	.66 (.07)*		.58 (.07)*
Asian	1.0 (.13)		1.1 (.17)	.10 (.31)		.40 (.41)	.38 (.08)*		.42 (.09)*	.92 (.10)		1.0 (.26)	1.2 (.17)		1.1 (.19)
Black	1.2 (.27)		1.2 (.40)	.05 (.61)		1.2 (.83)	-.02 (.13)		-.07 (.19)	1.1 (.42)		1.3 (.73)	1.0 (.27)		1.2 (.45)
White	.95 (.15)		1.3 (.26)	-.22 (.42)		-.28 (.54)	.18 (.10)*		.17 (.12)	.74 (.24)		.81 (.54)	1.1 (.19)		1.1 (.23)
Other	1.1 (.23)		1.1 (.28)	.15 (.56)		.70 (.69)	-.12 (.14)		-.13 (.16)	.83 (.43)		.94 (.54)	1.0 (.25)		1.0 (.28)
Family Characteristics															
Mother's Education	1.0 (.02)		.99 (.03)	.13 (.07)*		.05 (.08)	.08 (.01)*		.07 (.02)*	1.1 (.05)		1.0 (.06)	1.1 (.03)*		1.1 (.04)*
Household Income	1.0 (.02)		1.0 (.03)	.24 (.06)*		.27 (.08)	.04 (.01)*		.03 (.01)*	1.0 (.03)		.98 (.04)	1.0 (.02)		.99 (.03)
# People Household	.99 (.03)		1.0 (.16)	-.09 (.09)		-.17 (.10)	-.10 (.02)*		-.09 (.02)*	.96 (.07)		.99 (.07)	.89 (.03)*		.90 (.03)*
Parent's Low English Fluency	1.1 (.14)		1.0 (.16)	-.55 (.31)*		-.47 (.41)	-.06 (.08)		.01 (.09)	1.2 (.26)		.94 (.22)	.89 (.15)		.91 (.19)

Table 5 (cont.) Analysis of Family and Neighborhood Characteristics on Social Relationships: School Domain

	Supportive Teacher Relationship			***Time in Extracurricular Activities***			***Participation in School Activities***			***College Entrance Info from School***			***Work-based Program Participation***		
	OR (SE)	OR (SE)	OR (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	*B* (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12	Model 13	Model 14	Model 15
Neighborhood Characteristics															
Disadvantage Index		1.0 (.02)	1.0 (.02)		-.21 (.07)**	-.05 (.08)		-.08 (.01)*	-.03 (.01)+		1.0 (.04)	1.0 (.04)		.93 (.02)*	.96 (.02)
Community Integration		1.2 (.14)	1.1 (.02)		.81 (.33)*	.56 (.33)+		.06 (.07)	.01 (.07)		1.0 (.18)	1.0 (.21)		1.0 (.14)	.99 (.14)

+p<.10. *p<.05. **p<.01. ***p<.001

Table 6. Analysis of Family and Neighborhood Characteristics on Social Relationships: Community Domain

	Volunteering during High School		
	Odds Ratio (SE)	Odds Ratio (SE)	Odds Ratio (SE)
	Model 1	Model 2	Model 3
Male	.46 (.05)***		.45 (.06)**
Asian	1.9 (.28)***		1.7 (.43)*
Black	1.9 (.58)**		2.2 (.1.0)*
White	1.1 (.22)		1.1 (.28)
Other	1.2 (.30)		.97 (.29)
Family Characteristics			
Mother's Education	1.2 (.04)*		1.1 (.04)*
Household Income	1.0 (.03)		1.0 (.03)
# People Household	.88 (.03)**		.86 (.04)**
Parent's Low English Fluency	1.2 (.18)		1.1 (.21)
Neighborhood Characteristics			
Disadvantage Index		.89 (.02)***	.95 (.03)
Community Integration		1.2 (.18)*	1.2 (.19)

$^{+}$p<.10. *p<.05. **p<.01. ***p<.001

Community Domain

Table 6 presents the odds ratio results of logit regression analysis predicting whether second generation immigrant adolescents performed unpaid volunteer work during high school. The first model regressed community participation on individual and family characteristics. The odds that second generation boys report volunteering during high school is .46 that of girls (or 54 percent lower). As we saw in the t-tests, Asian and Black immigrant youth report higher volunteering compared to Hispanic youth, and this advantage remains significant even after controlling for family and neighborhood characteristics (Model 3). As mother's educational attainment increases, the odds of immigrant youth volunteer increases. In addition, the number of people living in the household matters. The odds of second generation immigrant youth volunteering is decreased by a factor of .88 when there is a one unit increase of people in the household. Model 2 adds neighborhood conditions. In general, living in disadvantage neighborhoods is associated with a decrease in the odds of volunteering during high school. Community integration has a positive association with increasing the odds of volunteering, however—similar to the disadvantage measure—this effect becomes non-significant with the addition of individual

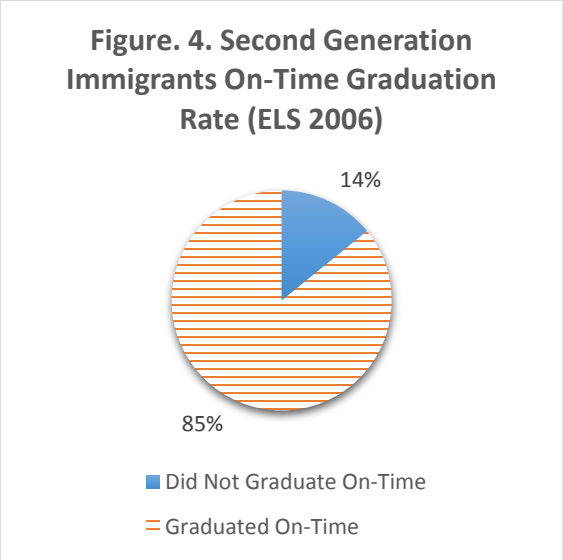
and family characteristics. The final model 3 also shows an enduring racial difference, and in the case of Black immigrant youth the magnitude increases. This suggests that once you take into account the disadvantage neighborhood conditions and community integration that Black youth live in, they volunteer more in these neighborhood contexts than Hispanic youth.

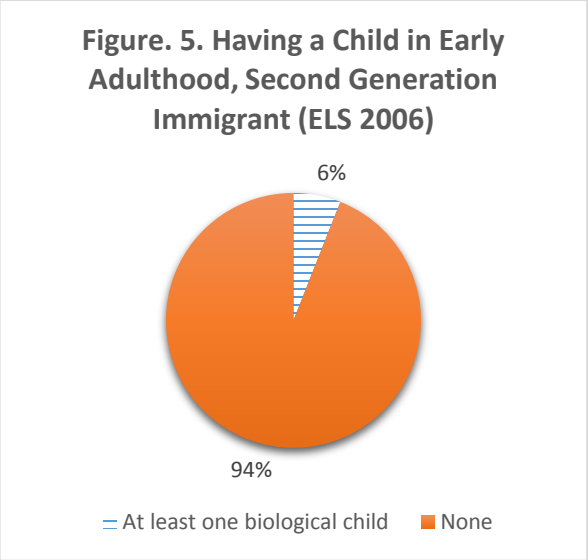
In this chapter, I use data from ELS and the U.S. Census (2000) to examine whether family background and neighborhood characteristics are associated with variation in social embeddedness across all four domains among second generation immigrants during adolescence. The results demonstrate that family and neighborhoods do matter in shaping the intensity and quality of social embeddedness during this period. Within the family domain, maternal education has a positive association with more parent-child communication, being able to obtain college information from family members and higher intergenerational closure. Neighborhood disadvantage, on the other hand, decreases the frequency of parental communication among immigrant youth. In addition, for all measures of the family domain, second generation immigrant girls are more likely to be embedded socially: compared to boys, immigrant goes are more likely to speak with their parents, value living close to home, have mothers who aspire for them to attend college, go to family members for college information and have higher intergenerational closure. Within the peer domain, family and neighborhood characteristics also emerge as significant in affecting the peer group immigrant youth have contact with. Mother's education and household income decreases the odds that immigrant youth have peers who plan to work full-time or attend a two-year college after high school, and increases the odds their peers will plan to go to a four-year college. Neighborhood disadvantage has an opposing effect, and increases the odds of a peer group that plans to work full-time or go to a two-year college after high school. In addition, these family background and neighborhood characteristics are again significant in affecting immigrant youth's participation within the school and community domain. Of interest, an increase in the number of people in the household and neighborhood disadvantage reduces the likelihood that immigrant youth will spend more time in extracurricular activities, work-based programs, unpaid volunteer work, and will decrease the number of school activities they participate in. As expected, the advantage of higher mother's educational attainment and household income increases the odds of participation in these programs and activities.

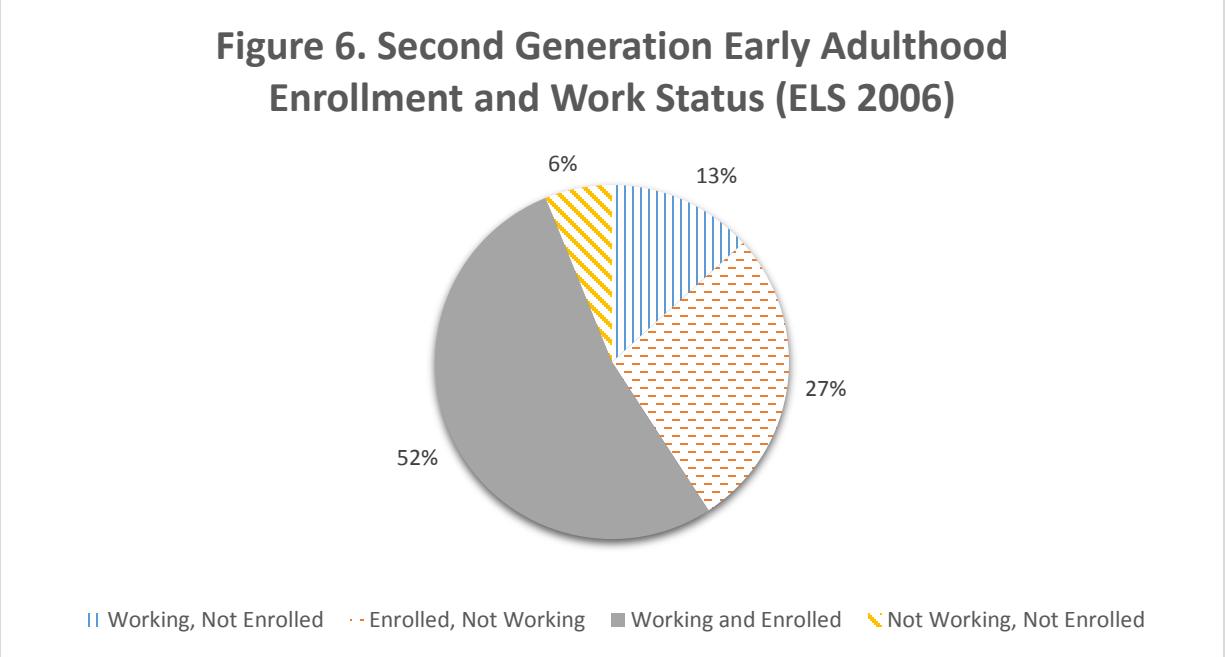
Chapter Six: Social Embeddedness During Adolescence and Early Adulthood Education, Work and Family Patterns

In the previous chapters, I showed what social embeddedness looks like among second generation adolescents and how the social relationships may be shaped by family and neighborhood conditions. My second research question addresses whether the quality of social relationships across the four domains, family background and neighborhood composition during adolescence affect early education, work and family formation patterns during the transition to early adulthood. In this chapter, I additionally use data from the second follow-up of ELS in 2006, when most youth were either enrolled in post-secondary education up to their second year, primarily working or disconnected (neither working nor enrolled). To examine early adulthood patterns, I conduct a series of hierarchical regression analyses on three outcomes of: whether immigrant youth graduate from high school on time; the current enrollment and work status; and whether the young adult had at least one biological child.

By 2006, 85 percent of the second generation immigrant youth in the ELS sample had graduated on-time from high school (see Figure 4)—a rate that is higher than the national average of 73 percent that same year (NCES Common Core of Data, 2014). However, there are important racial and ethnic differences in high school completion. For example, only 78 percent of second generation Hispanic immigrants graduated on-time from high school graduation compared to 92 percent of second generation Asian immigrants. As this sample transitions from high school into post-secondary education or the labor market, we can see that the majority are working with over half of second generation immigrants enrolled in college and working simultaneously (see Figure 5). Additionally, about one-third are enrolled only in post-secondary education. A relatively small percentage of youth, 6 percent, report neither working nor going to school two years after the 2004 follow-up survey when the sample was between 19 and 21 years old. Figure 6 shows the percent of young adults who reported having at least one biological child by early adulthood. Only six percent of the sample reported having at least one biological child and 66 percent of those were Hispanic.







On-Time High School Graduation

Table 7 presents the results from the hierarchical logistic regression analysis of the impact of social embeddedness on high school graduation (on-time) among second generation immigrants. As with the previous regression models presented in Chapter 5, the variables are added to the model sequentially in order to examine whether social embeddedness across the four domains: family, peer, school and community is associated with high school graduation and explains any of the sex, race/ethnicity, or family socioeconomic differences in high school completion. Model 1 includes individual characteristics, Model

2 adds in family characteristics, Model 3 adds neighborhood characteristics and Models 4 through 7 include the social embeddedness variables separately by domain.

Odds ratios from the logistic models examining the association between the intensity and quality of relationships in adolescence and on-time high school graduation are presented in Table 7. Consistent with prior studies, the results from Model 1 indicate second generation immigrant males have lower odds of graduating on-time from high school compared to females (Greene & Winters, 2006). This gender gap remains robust even with the addition of family background, neighborhood characteristics as controls. In terms of racial and ethnic differences, Asian, White and Black second generation youth have significantly higher odds of completing high school compared to Hispanics (Model 1). Family background explains a little over 10 percent of the Asian-Hispanic gap, but over 30 percent of the White-Hispanic gap (Model 2). The addition of neighborhood characteristics into Model 3 does little to change the Asian-Hispanic gap but reduces the White-Hispanic gap to non-significance.

The results from Model 2 show that the odds of graduating on-time from high school are significantly higher among youth with more educated mothers and higher household income. As we saw with embeddedness, greater number of people in the household exerts a negative effect on the odds of graduating from high school although this effect becomes non-significant once family ties are added to the final model. Interestingly, immigrant youth whose parents report feeling like they are a part of their communities have 1.5 times greater odds of graduating on-time from high school compared to youth whose families do not feel integrated into their communities.

The results in Models 4 find that parent-child communication is the only measure of family relationships associated with a significant increase in the odds of graduating on-time, after taking into account individual, family background and neighborhood quality. Specifically, a one unit increase in parent-child communication is associated with an increase a 2.7 increase in the odds of graduating on time. That is, having more frequent discussions with parents about school courses, grades, and current events, is associated with much greater odds of graduating high school even after controlling for family socioeconomic background, sex, race and ethnicity and neighborhood conditions. In terms of explaining individual and family background differences, adding social embeddedness within the family reduces the Asian-Hispanic gap by one-third and reduces the Black-Hispanic gap substantially.

Model 5 shows that two measures of peer relationships increase the odds of completing high school on-time: whether the youth's friends plan to go to a four-year college and whether the youth obtains information about applying for college from their peers. Specifically, college plans is associated with a 2.2 increase and relying on friends for college information is associated with a 1.7 increase in the odds of completing high school. This is consistent with prior work which has found that the role of peers for ethnic minority students is especially important for academic motivation and as a resource support

(Gibson, 1995). The only other peer embeddedness measure that significantly relates to high school graduation is whether the youth's peers plan to get a full-time job which is associated with a decrease in the odds of high school graduation. In addition peer relationships seem to explain more of the Asian-Hispanic gap in high school completion compared to family embeddedness, reducing the gap by 42 percent.

The results in Model 6 show that many of the measures of school embeddedness are related to graduating on-time from high school after controlling for individual, family and neighborhood characteristics. Having supportive relationships with teachers, spending more time in extracurricular activities and obtaining college information from school all increase the odds that this sample of second generation youth will graduate high school. Specifically, second generation immigrant youth embedded in more supportive relationships with teachers were 1.7 times more likely to graduate on-time, controlling for family and neighborhood characteristics. In addition to the quality of relationships with a school adult, immigrant youth who reported that they were able to obtain college entrance information from school were 1.9 times more likely to graduate on time. As discussed previously, one important facet of social relationships is the ability to access and use the resources from networks. In this case, immigrant youth who spent time in school-related activities, had a positive relationship and could access educational resources were significantly more likely to graduate on-time.

Finally, Model 7 shows that students who volunteer in their communities are 2.5 times more likely to graduate on-time compared to youth who do not engage in this activity. The size of this coefficient is the highest of all the embeddedness measures other than parent-child communication (odds ratio = 2.7) and is consistent with prior research showing that ties to community may be particularly important in fostering the completion of educational milestones among immigrant youth (Crosnoe & Turley, 2011; Zhou & Kim, 2006).

Table 7. Logit Regression Analysis of Social Relationship on On-Time High School Graduation (odds ratio, N=1624)

	OR (SE) **Model 1**	OR (SE) **Model 2**	OR (SE) **Model 3**	OR (SE) **Model 4**	OR (SE) **Model 5**	OR (SE) **Model 6**	OR (SE) **Model 7**
Individual Characteristics							
Male	.59 (.08)**	.58 (.08)**	.58 (.10)*	.67 (.15)+	.80 (.17)	.68 (.13)*	.55 (.12)**
Asian	3.2 (.60)***	2.8 (.55)***	3.1 (.85)**	2.1 (.65)**	1.8 (.51)*	2.6 (.70)***	4.1 (1.3)***
Black	2.0 (.65)*	1.5 (.56)	1.9 (1.1)	.88 (.65)	.98 (.59)	1.6 (.98)	1.5 (.98)
White	2.8 (.68)***	1.9 (.51)*	1.3 (.43)	1.0 (.41)	.84 (.29)	1.1 (.42)	1.5 (.57)
Other	1.4 (.40)	1.0 (.34)	1.0 (.41)	.88 (.38)	.74 (.31)	1.0 (.42)	1.3 (.64)
Family Characteristics							
Mother's Education		1.1 (.05)**	1.1 (.06)*	1.0 (.06)	1.0 (.06)	1.0 (.06)	1.2 (.08)***
Household Income		1.2 (.03)***	1.1 (.04)*	1.0 (.05)	1.1 (.04)	1.0 (.04)	1.0 (.05)
# People in Household		.85 (.04)**	.86 (.05)*	.89 (.07)	.87 (.06)	.89 (.05)	.90 (.07)
Parent's Low English Fluency		.94 (.16)	.92 (.05)	1.0 (.28)	.75 (.18)	.86 (.21)	1.0 (.22)
Neighborhood Characteristics							
Disadvantage Index			1.0 (.03)	.99 (.04)	.99 (.04)	.99 (.04)	1.0 (.04)
Community Integration			1.5 (1.0)*	1.7 (.39)***	1.5 (.31)*	1.5 (.30)*	1.4 (.32)
Intensity and Quality of Family Relationships							
Parent-Child Communication				2.7 (.72)***			
Valuing Living Close to Home				.92 (.21)			
Mother College Aspiration for Youth				1.4 (.37)			
College Entrance Info from Family				1.7 (.60)			
Intergenerational Closure				.98 (.05)			
Intensity and Quality of Peer Relationships							
Leisure Time with Friends					.83 (.13)		
Peers Value Academics					1.4 (.41)		
Peers Value Social Engagement					.75 (.21)		
Peers Value Employment					1.2 (.31)		
Peers Value Community Engagement					.90 (.18)		
Peers Plan for Full-Time Job					.70 (.07)***		
Peers Plan for Community College					1.0 (.13)		
Peers Plan for Four-Year College					2.2 (.24)***		
College Entrance Info from Friends					1.7 (.46)*		

Table 7 (cont.) Logit Regression Analysis of Social Relationship on On-Time High School Graduation (odds ratio, N=1624)

	OR (SE) **Model 1**	OR (SE) **Model 2**	OR (SE) **Model 3**	OR (SE) **Model 4**	OR (SE) **Model 5**	OR (SE) **Model 6**	OR (SE) **Model 7**
Intensity and Quality of School Relationships							
Supportive Teacher Relationship						1.7 (.24)***	
Time in Extracurricular Activities						1.1 (.02)**	
Participation in School Activities						1.4 (.18)*	
College Entrance Info from School						1.9 (.69)+	
Work-Based Program Participation						1.2 (.28)	
Community Relationships							
Volunteering in High School							2.5 (.56)***

[1]Compared to Hispanic adolescents

+p<.10. *p<.05. **p<.01. ***p<.001

College Enrollment and Work Status

Tables 8 through 11 show the results of multinomial logit estimates of early adulthood education and work status in 2006, when immigrant youth are two years out of high school. As in the previous analyses, social embeddedness measures in the family domain, peer domain, school domain and community domain are entered separately into the model predicting work and post-secondary enrollment status. There are four patterns of work and enrollment in post-secondary education, as illustrated in Figure 6 previously. Being enrolled only in college is arguably the most privileged of the early adulthood statuses; however, over half of second generation immigrants are working and enrolled simultaneously.

The results indicate that male immigrant youth have much higher odds of "working, not enrolled" compared to only being enrolled in college. Asian immigrant youth compared to Hispanic immigrant youth are more likely to be enrolled in college only compared to all the other work-education statuses of: "working, not enrolled"; "working and enrolled"; and "not working, not enrolled." There are no other differences between racial and ethnic immigrants in their early education and work patterns. As expected, immigrant youth with more educated mothers and from higher income families have higher odds of only being enrolled in college. As the number of people in household increases so to do the odds of only working. Again, appearing as a strong influence in early adulthood patterns, an increase in the number of people living in the household during adolescence also significantly contributes to immigrant youth being disconnected compared to being solely enrolled in post-secondary in early adulthood. The only significant effect of community integration is lowering odds of being disconnected in early adulthood (neither working nor going to college) (see Model 5).

Table 8 presents the multinomial logit analysis of the association between family embeddedness and early adulthood college enrollment and work status. Parent-child communication emerges again as significant in predicting early adult success (Model 2 and Model 6). Specifically, with each one-unit increase in parent-child communication, immigrant young adults are .26 times as likely to be in the working group compared to being enrolled in college, holding other variables in the model constant. That is, second generation immigrant young adults who discussed with their parents during adolescence on topics such as school activities will be less likely to just work compared to being solely enrolled in college during early adulthood. Parent-child communication also emerges as important for reducing the odds of being disconnected in early adulthood for second generation immigrants. A one unit increase in parent-child communication in adolescence is associated with immigrant young adults of .30 times as likely to be "not working, not enrolled" compared to "enrolled, not working," controlling for family and neighborhood characteristics. However, as discussed previously with the double-edged nature of social capital and relationships, second generation immigrant youth who place a high value on living close to home have significantly greater odds of only working after high school and being disconnected (neither

working or going to school). In fact, immigrant youth who report valuing living close to home are 3.2 times more likely to report neither working or going to school versus being enrolled in college only. Mother's aspiration for youth to attend college is also significant and positive for immigrant young adult's enrollment in college. An increase in mother's college aspiration reduces the odds of immigrant young adults working only or being disconnected, compared to being enrolled in post-secondary education only. In examining whether family embeddedness explains any of the sex, race or family socioeconomic differences in early education and work outcomes, we can see that adding family ties reduces female advantage of being only enrolled in college verses only working by half and it becomes non-significant. (Model 2, Table 8). The Asian-Hispanic gap is also reduced slightly with the addition of family embeddedness measures for being enrolled compared to being enrolled and working (Model 4, Table 8). The addition of family ties actually also reduces the significance of maternal education for immigrant youth being only enrolled versus disconnected, neither working nor enrolled (Model 6, Table 8).

Table 8: Multinomial Logit Analysis of Social Relationships on Early Adulthood Education and Work Status in 2006: Family Domain (odds ratio, N=1624)

Independent Variables	**Working, not enrolled vs. Enrolled, not working[1]** OR (SE)		**Working and enrolled vs. Enrolled, not working[1]** OR (SE)		**Not working, not enrolled vs. Enrolled, not working [1]** OR (SE)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Individual Characteristics						
Male	2.10 (.50)**	1.4 (.41)	.78 (.12)	.79 (.14)	1.5 (.50)	.91 (.37)
Asian[2]	.16 (.05)***	.31 (.11)*	.54 (.10)*	.63 (.13)*	.22 (.08)**	.22 (.10)**
Black[2]	.13 (.14)+	.05 (.00)	.85 (.35)	.81 (.36)	.02 (.00)	.00 (.00)
White[2]	.76 (.30)	.97 (.49)	.90 (.24)	1.0 (.31)	.39 (.22)	.38 (.26)
Other[2]	.63 (.31)	1.0 (.57)	.92 (.31)	1.0 (.38)	.03 (.00)	.00 (.00)
Family Characteristics						
Mother's Education	.78 (.05)**	.82 (.06)*	.94 (.04)	.94 (.04)	.71 (.07)**	.82 (.10)
Household Income	.77 (.04)***	.80 (.05)*	.92 (.03)*	.92 (.04)	.76 (.05)***	.74 (.06)***
# People in Household	1.3 (.10)**	1.1 (.11)	1.1 (.06)*	1.1 (.06)	1.4 (.16)**	1.3 (.18)*
Parent's Low English Fluency	1.1 (.10)	1.0 (.12)	1.1 (.07)	1.0 (.08)	1.3 (.16)	1.4 (.21)
Neighborhood Characteristics						
Disadvantage Index	1.0 (.05)	1.1 (.07)	1.0 (.04)	1.0 (.04)	.93 (.07)	.92 (.09)
Community Integration	.94 (.24)	.79 (.24)	.84 (.14)	.76 (.15)	.57 (.18)+	.51 (.21)

Table 8 (cont.): Multinomial Logit Analysis of Social Relationships on Early Adulthood Education and Work Status in 2006: Family Domain (odds ratio, N=1624)

Independent Variables	**Working, not enrolled vs. Enrolled, not working[1]** OR (SE)		**Working and enrolled vs. Enrolled, not working[1]** OR (SE)		**Not working, not enrolled vs. Enrolled, not working [1]** OR (SE)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intensity and Quality of Family Relationships						
Parent-Child Communication		.26 (.09)***		.74 (.15)		.30 (.13)**
Valuing Living Close to Home		1.7 (.48)*		1.0 (.17)		3.2 (1.3)**
Mother College Aspiration for Youth		.54 (.19)+		1.1 (.29)		.32 (.14)*
College Entrance Info from Family		.58 (.29)		1.0 (.23)		.69 (.32)
Intergenerational Closure		1.0 (.08)		1.0 (.04)		.93 (.10)

[1] Compared to young adults who were "Enrolled, Not Working"

[2] Compared to Hispanic young adults

+p<.10. *p<.05. **p<.01. ***p<.001

Table 9: Multinomial Logit Analysis of Social Relationships on Early Adulthood Education and Work Status in 2006: Peer Domain (odds ratio, N=1624)

Independent Variables	**Working, not enrolled vs. Enrolled, not working[1]** OR (SE)		**Working and enrolled vs. Enrolled, not working[1]** OR (SE)		**Not working, not enrolled vs. Enrolled, not working [1]** OR (SE)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Individual Characteristics						
Male	2.10 (.50)**	1.4 (.38)	.78 (.12)	.74 (.12)	1.5 (.50)	1.2 (.44)
Asian[2]	.16 (.05)***	.30 (.10)**	.54 (.10)*	.59 (.12)*	.22 (.08)***	.33 (.14)*
Black[2]	.13 (.14)+	.26 (.29)	.85 (.35)	1.0 (.43)	.02 (.00)	.00 (.00)
White[2]	.76 (.30)	1.2 (.53)	.90 (.24)	.97 (.27)	.39 (.22)	.62 (.37)
Other[2]	.63 (.31)	.93 (.51)	.92 (.31)	.92 (.32)	.03 (.00)	.00 (.00)
Family Characteristics						
Mother's Education	.78 (.05)**	.82 (.06)*	.94 (.04)	.97 (.04)	.71 (.07)**	.75 (.06)*
Household Income	.77 (.04)***	.81 (.04)**	.92 (.03)*	.94 (.03)	.76 (.05)***	.81 (.06)*
Number of People in Household	1.3 (.10)**	1.3 (.11)*	1.1 (.06)*	1.1 (.06)	1.4 (.16)**	1.4 (.16)*
Parent's Low English Fluency	1.1 (.10)	1.0 (.10)	1.1 (.07)	1.0 (.07)	1.3 (.16)	1.3 (.17)
Neighborhood Characteristics						
Disadvantage Index	1.0 (.05)	1.0 (.06)	1.0 (.04)	1.0 (.04)	.93 (.07)	.94 (.08)
Community Integration	.94 (.24)	.85 (.23)	.84 (.14)	.82 (.14)	.57 (.18)+	.52 (.18)*
Intensity and Quality of Peer Relationships						
Leisure Time with Friends		1.2 (.26)		1.1 (.14)		1.0 (.26)
Peers Value Academics		.79 (.33)		.76 (.17)		1.0 (.54)
Peers Value Social Engagement		1.1 (.33)		.76 (.17)		.57 (.24)
Peers Value Employment		1.3 (.37)		1.1 (.25)		2.3 (1.0)*
Peers Value Community Engagement		.97 (.23)		.91 (.14)		1.2 (.36)

Table 9 (cont.): Multinomial Logit Analysis of Social Relationships on Early Adulthood Education and Work Status in 2006: Peer Domain (odds ratio, N=1624)

Independent Variables	**Working, not enrolled vs. Enrolled, not working[1]** OR (SE)		**Working and enrolled vs. Enrolled, not working[1]** OR (SE)		**Not working, not enrolled vs. Enrolled, not working [1]** OR (SE)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Peers Plan for Full-Time Job		1.5 (.19)**		1.1 (.10)		1.8 (.30)***
Peers Plan for Community College		1.3 (.19)		1.2 (.11)*		.97 (.19)
Peers Plan for Four-Year College		.41 (.05)***		.70 (.07)**		.54 (.09)**
College Entrance Info from Friends		.65 (.27)		1.4 (.26)+		.57 (.30)

[1] Compared to young adults who were "Enrolled, Not Working"

[2] Compared to Hispanic young adults

+p<.10. *p<.05. **p<.01. ***p<.001

Results from Table 9 illustrate that, of all the peer domain measures, immigrant adolescent's report of their peer's plan to attend a four-year college after high school is the most important in increasing the odds that the youth will be enrolled only in college and not working (Models 2, 4 and 6). An increase of having peers who plan to have a full-time job increases the odds of immigrant young adults also working only in early adulthood compared to being enrolled only in college. For this comparison group, as summarized previously, male immigrant youth are more likely to be working only compared to being enrolled in college only. The addition of peer relationship measures decreases this likelihood by nearly half and the sex gap becomes non-significant.

Peer's plans after high school are also significant in influencing if second generation immigrant youth will be disconnected or enrolled in college only during early adulthood Immigrant youth who report that their friend's plans are to work full-time after high school have an 80 percent increase in the odds neither working or going to college two years after high school compared to being only enrolled in college.

Table 10: Multinomial Logit Analysis of Social Relationships on Early Adulthood Education and Work Status in 2006: School Domain (odds ratio, N=1624)

Independent Variables	**Working, not enrolled vs. Enrolled, not working[1]** OR (SE)		**Working and enrolled vs. Enrolled, not working[1]** OR (SE)		**Not working, not enrolled vs. Enrolled, not working [1]** OR (SE)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Individual Characteristics						
Male	2.10 (.50)**	1.9 (.51)*	.78 (.12)	.79 (.13)	1.5 (.50)	1.2 (.44)
Asian[2]	.16 (.05)***	.20 (.07)*	.54 (.10)*	.57 (.12)*	.22 (.08)***	.23 (.10)*
Black[2]	.13 (.14)+	.13 (.14)	.85 (.35)	.87 (.37)	.02 (.00)	.00 (.00)
White[2]	.76 (.30)	.81 (.35)	.90 (.24)	.92 (.26)	.39 (.22)	.36 (.22)
Other[2]	.63 (.31)	.61 (.32)	.92 (.31)	.83 (.29)	.03 (.00)	.00 (.00)
Family Characteristics						
Mother's Education	.78 (.05)**	.78 (.05)*	.94 (.04)	.94 (.04)	.71 (.07)**	.72 (.08)*
Household Income	.77 (.04)***	.80 (.04)*	.92 (.03)*	.93 (.04)	.76 (.05)***	.77 (.06)**
Number of People in Household	1.3 (.10)**	1.2 (.10)*	1.1 (.06)*	1.1 (.06)*	1.4 (.16)**	1.4 (.17)**
Parent's Low English Fluency	1.1 (.10)	1.1 (.11)	1.1 (.07)	1.0 (.07)	1.3 (.16)	1.4 (.17)*
Neighborhood Characteristics						
Disadvantage Index	1.0 (.05)	1.0 (.05)	1.0 (.04)	1.0 (.04)	.93 (.07)	.93 (.07)
Community Integration	.94 (.24)	.80 (.21)	.84 (.14)	.77 (.14)	.57 (.18)+	.60 (.21)

Table 10 (cont.): Multinomial Logit Analysis of Social Relationships on Early Adulthood Education and Work Status in 2006: School Domain (odds ratio, N=1624)

Independent Variables	**Working, not enrolled vs. Enrolled, not working[1]** OR (SE)		**Working and enrolled vs. Enrolled, not working[1]** OR (SE)		**Not working, not enrolled vs. Enrolled, not working [1]** OR (SE)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intensity and Quality of School Relationships						
Supportive Teacher Relationship		.62 (.11)*		.82 (.10)		.49 (.12)**
Time in Extracurricular Activities		.94 (.02)*		.82 (.10)		.94 (.03)
Participation in School Activities		.75 (.10)*		.93 (.06)		.79 (.14)
College Entrance Info from School		.51 (.18)+		1.3 (.37)		.48 (.30)
Work-Based Program Participation		.85 (.27)		1.0 (.19)		.54 (.24)

[1] Compared to young adults who were "Enrolled, Not Working"

[2] Compared to Hispanic young adults

+p<.10. *p<.05. **p<.01. ***p<.001

The results in Table 10 show how school embeddedness relates to early adulthood education and work status of second generation immigrant young adults. Having supportive teacher relationships and extracurricular participation are associated with an increased odds of the young adult only going to college verses only working in the labor market two years after high school. In particular, youth who reported having supportive relationships with teachers in their high school had almost 40 percent lower odds of only working compared to only going to college. Supportive teacher relations is also important in understanding which immigrant youth are neither working or going to school in early adulthood. Immigrant adolescents who report a non-hostile relationship with their teacher are 51 percent less likely to be disconnected (i.e. not working and enrolled) compared to being enrolled only in post-secondary education.

The results in Table 11 show the importance of volunteering in the community during high school on early adult educational and occupational pathways. Immigrant adolescents who reported volunteering during high school are 70 percent less likely to be working only and 78 percent less likely to be disconnected in early adulthood compared to being enrolled only.

Table 11: Multinomial Logit Analysis of Social Relationships on Early Adulthood Education and Work Status in 2006: Community Domain (odds ratio, N=1624)

Independent Variables	**Working, not enrolled vs. Enrolled, not working[1]** OR (SE)		**Working and enrolled vs. Enrolled, not working[1]** OR (SE)		**Not working, not enrolled vs. Enrolled, not working [1]** OR (SE)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Individual Characteristics						
Male	2.10 (.50)**	1.8 (.50)*	.78 (.12)	.82 (.13)	1.5 (.50)	.92 (.33)
Asian[2]	.16 (.05)***	.18 (.06)**	.54 (.10)*	.53 (.11)*	.22 (.08)***	.23 (.10)**
Black[2]	.13 (.14)+	.20 (.23)	.85 (.35)	.91 (.40)	.02 (.00)	.0 (.00)
White[2]	.76 (.30)	.79 (.36)	.90 (.24)	.83 (.24)	.39 (.22)	.21 (.15)*
Other[2]	.63 (.31)	.61 (.33)	.92 (.31)	.77 (.27)	.03 (.00)	.00 (.00)
Family Characteristics						
Mother's Education	.78 (.05)**	.76 (.06)*	.94 (.04)	.93 (.04)	.71 (.07)**	.74 (.08)*
Household Income	.77 (.04)***	.79 (.04)*	.92 (.03)*	.93 (.04)	.76 (.05)***	.77 (.06)**
Number of People in Household	1.3 (.10)**	1.2 (.11)*	1.1 (.06)*	1.1 (.06)*	1.4 (.16)**	1.3 (.16)*
Parent's Low English Fluency	1.1 (.10)	1.0 (.11)	1.1 (.07)	1.1 (.07)	1.3 (.16)	1.3 (.17)
Neighborhood Characteristics						
Disadvantage Index	1.0 (.05)	1.0 (.06)	1.0 (.04)	1.0 (.04)	.93 (.07)	.89 (.07)
Community Integration	.94 (.24)	.92 (.25)	.84 (.14)	.83 (.15)	.57 (.18)+	.76 (.28)
Community Relationships						
Volunteering during high school		.30 (.08)***		.73 (.15)		.22 (.08)***

[1] Compared to young adults who were "Enrolled, Not Working"

[2] Compared to Hispanic young adults

+p<.10. *p<.05. **p<.01. ***p<.001

Early Adulthood Family Formation

Tables 12 to 15 show the results of the logit regression analyses of second generation immigrant young adults having a child in 2006, when they are two years out of high school. Similar to the analysis patterns of the previous tables, social embeddedness measures in the family domain, peer domain, school domain and community domain are entered separately into the model predicting early family formation. Model 1 is the baseline with individual characteristics, Model 2 incorporates family characteristics, Model 4 adds in neighborhood characteristics and Model 4 is the final model with the social relationship domain measures. As illustrated in Figure 5, six percent of immigrant youth have at least one biological child in early adulthood.

Results in Model 1 show that men are less likely to report having had a child by early adulthood compared to women. In addition, Asian, Black and White second generation immigrants are less likely to have a child two years after high school compared to Hispanic immigrant young adults. Model 2 finds that these sex and racial differences persist with the addition of family characteristics. An increase in mother's education and household income decreases the odds of having a child early on in life. An increase in number of people living in the household, however, increases these odds. Unexpectedly, parent's low English Fluency decreases significantly the odds of having a child in early adulthood, although this effect is reduced non-significant with the addition of neighborhood characteristics. Neighborhood characteristics, as shown in Model 3, are not significant in influencing if second generation immigrants.

Model 4 of Table 12 show that, surprisingly, higher quality family relationships do not significantly lower the odds of having a child by early adulthood. Rather, peer, school and community ties seem to be more predictive of early family formation.

Table 12. Logit Regression Analysis of Social Relationships on Having a Child in Early Adulthood: Family Domain (odds ratio, N=1624)

	OR (SE) **Model 1**	OR (SE) **Model 2**	OR (SE) **Model 3**	OR (SE) **Model 4**
Individual Characteristics				
Male	.40 (.09)***	.39 (.10)***	.37 (.11)*	.32 (.13)*
Asian[1]	.15 (.05)***	.15 (.05)***	.07 (.04)*	.05 (.04)*
Black[1]	.26 (.16)*	.25 (.15)*	.28 (.22)	.24 (.26)
White[1]	.31 (.25)*	.33 (.13)*	.26 (.13)*	.30 (.19)
Other[1]	.55 (.25)	.55 (.26)	.22 (.17)	.15 (.16)
Family Characteristics				
Mother's Education		.84 (.06)*	.87 (.07)	.91 (.10)
Household Income		.84 (.04)*	.79 (.05)**	.73 (.06)
Number of People in Household		1.2 (.09)*	1.2 (.122)*	1.1 (.14)
Parent's Low English Fluency		.50 (.14)*	.54 (.19)	.77 (.34)
Neighborhood Characteristics				
Disadvantage Index			.90 (.05)	.93 (.07)
Community Integration			.95 (.28)	1.1 (.45)
Intensity and Quality of Family Relationships				
Parent-Child Communication				.77 (.35)
Valuing Living Close to Home				.93 (.34)
Mother College Aspiration for Youth				.76 (.34)
College Entrance Info from Family				.61 (.30)
Intergenerational Closure				1.0 (.11)

[1] Compared to Hispanic young adults

$^{+}$p<.10. *p<.05. **p<.01. ***p<.001

The results in Table 13 show the importance, once again, of peer plans after high school in predicting early adult outcomes. Second generation immigrant youth who are embedded in a peer group that planned to have a full-time job after high school have greater odds of becoming parents in early adulthood. Conversely, immigrant youth who are more likely to have peers who plan to enroll in a four-year college after high school have 55 percent lower odds of having a child by early adulthood. Overall, the addition of peer relationships reduced the gender gap with the odds of female immigrants having a child in early adulthood compared to males reduced 20 percent.

Again, supportive teacher relationships emerges as significant in predicting early adult outcomes (Table 14). Second generation immigrant adolescents who report having a supportive, non-hostile relationship with their teacher have 51 percent lower odds of having a child by early adulthood. Community participation is found to be significant as well. Second generation immigrants who performed unpaid volunteer work during high school have 73 percent lower odds of having a child by early adulthood compared to those who did not volunteer in their communities, controlling for family and neighborhood characteristics (see Table 15).

The results in Chapter 6 illustrate the enduring significance of social embeddedness, measured in adolescence, in shaping early adulthood education, work and family transitions. In particular, parent-child communication remains an important advantage for the educational pathway of second generation immigrant youth in increasing their odds of graduating on-time from high school and being enrolled only in post-secondary compared to solely working or being disconnected, neither enrolled nor working. Peer effects during adolescence are additionally important, specifically having a peer group that plans to attend a four-year college after high school. Immigrant youth embedded within these peer networks were more likely to graduate on-time from high school and be less likely to be disconnected or having a child in early adulthood. Among the school relationships and resources, the results also demonstrate the singular importance of having a supportive, non-hostile teacher relationship. Second generation immigrant youth who report having a supportive teacher relationship were more likely to graduate on-time, be enrolled in post-secondary and were less likely to have a child in early adulthood. Lastly, community participation remains influential in shaping a positive education pathway of graduating on-time and being enrolled in post-secondary, and reducing the odds of having a child in early adulthood.

Table 13. Logit Regression Analysis of Social Relationships on Having a Child in Early Adulthood: Peer Domain (odds ratio, N=1624)

	OR (SE) **Model 1**	OR (SE) **Model 2**	OR (SE) **Model 3**	OR (SE) **Model 4**
Individual Characteristics				
Male	.40 (.09)***	.39 (.10)***	.37 (.11)*	.20 (.07)**
Asian[1]	.15 (.05)***	.15 (.05)***	.07 (.04)*	.12 (.07)**
Black[1]	.26 (.16)*	.25 (.15)*	.28 (.22)	.49 (.40)
White[1]	.31 (.25)*	.33 (.13)*	.26 (.13)*	.41 (.22)
Other[1]	.55 (.25)	.55 (.26)	.22 (.17)	.28 (.23)
Family Characteristics				
Mother's Education		.84 (.06)*	.87 (.07)	.92 (.09)
Household Income		.84 (.04)*	.79 (.05)**	.82 (.05)*
Number of People in Household		1.2 (.09)*	1.2 (.122)*	1.2 (.13)
Parent's Low English Fluency		.50 (.14)*	.54 (.19)	.55 (.21)
Neighborhood Characteristics			.90 (.05)	.92 (.06)
Disadvantage Index			.95 (.28)	.88 (.28)
Community Integration				
Intensity and Quality of Peer Relationships				
Leisure Time with Friends				1.0 (.25)
Peers Value Academics				1.9 (1.0)
Peers Value Social Engagement				1.2 (.47)
Peers Value Employment				1.4 (.54)
Peers Value Community Engagement				.84 (.23)
Peers Plan for Full-Time Job				1.7 (.29)**
Peers Plan for Community College				.90 (.22)
Peers Plan for Four-Year College				.55 (.09)**
College Entrance Info from Friends				.57 (.23)

[1] Compared to Hispanic young adults

$^{+}$p<.10. *p<.05. **p<.01. ***p<.001

Table 14. Logit Regression Analysis of Social Relationships on Having a Child in Early Adulthood: School Domain (odds ratio, N=1624)

	OR (SE) **Model 1**	OR (SE) **Model 2**	OR (SE) **Model 3**	OR (SE) **Model 4**
Individual Characteristics				
Male	.40 (.09)***	.39 (.10)***	.37 (.11)*	.32 (.11)**
Asian[1]	.15 (.05)***	.15 (.05)***	.07 (.04)*	.07 (.04)***
Black[1]	.26 (.16)*	.25 (.15)*	.28 (.22)	.29 (.23)
White[1]	.31 (.25)*	.33 (.13)*	.26 (.13)*	.20 (.12)*
Other[1]	.55 (.25)	.55 (.26)	.22 (.17)	.10 (.11)*
Family Characteristics				
Mother's Education		.84 (.06)*	.87 (.07)	.88 (.08)
Household Income		.84 (.04)*	.79 (.05)**	.79 (.05)*
Number of People in Household		1.2 (.09)*	1.2 (.12)*	1.2 (.14)+
Parent's Low English Fluency		.50 (.14)*	.54 (.19)	.50 (.19)
Neighborhood Characteristics				
Disadvantage Index			.90 (.05)	.92 (.06)
Community Integration			.95 (.28)	.89 (.29)
Intensity and Quality of School Relationships				
Supportive Teacher Relationship				.49 (.11)**
Time in Extracurricular Activities				.95 (.04)
Participation in School Activities				.90 (.15)
College Entrance Info from School				.55 (.31)
Work-Based Program Participation				.64 (.25)

[1] Compared to Hispanic young adults

+p<.10. *p<.05. **p<.01. ***p<.001

Table 15. Logit Regression Analysis of Social Relationships on Having a Child in Early Adulthood: Community Domain (odds ratio, N=1624)

	OR (SE) **Model 1**	OR (SE) **Model 2**	OR (SE) **Model 3**	OR (SE) **Model 4**
Individual Characteristics				
Male	.40 (.09)***	.39 (.10)***	.37 (.11)*	.21 (.09)**
Asian[1]	.15 (.05)***	.15 (.05)***	.07 (.04)*	.11 (.06)**
Black[1]	.26 (.16)*	.25 (.15)*	.28 (.22)	.23 (.25)
White[1]	.31 (.25)*	.33 (.13)*	.26 (.13)*	.15 (.12)*
Other[1]	.55 (.25)	.55 (.26)	.22 (.17)	.17 (.19)
Family Characteristics				
Mother's Education		.84 (.06)*	.87 (.07)	.87 (.10)
Household Income		.84 (.04)*	.79 (.05)**	.75 (.06)*
Number of People in Household		1.2 (.09)*	1.2 (.12)*	1.0 (.13)
Parent's Low English Fluency		.50 (.14)*	.54 (.19)	1.2 (.15)
Neighborhood Characteristics			.90 (.05)	.89 (.07)
Disadvantage Index			.95 (.28)	.90 (.33)
Community Integration				
Community Relationship				
Volunteering in High School				.27 (.10)***

[1] Compared to Hispanic young adults

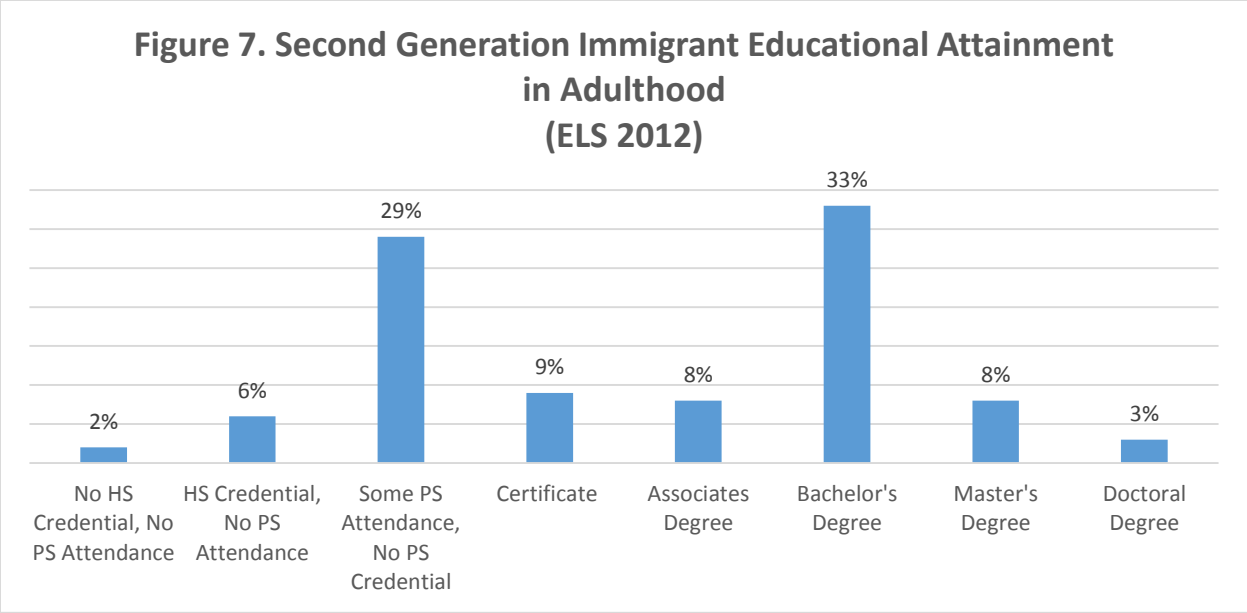
$^{+}$p<.10. *p<.05. **p<.01. ***p<.001

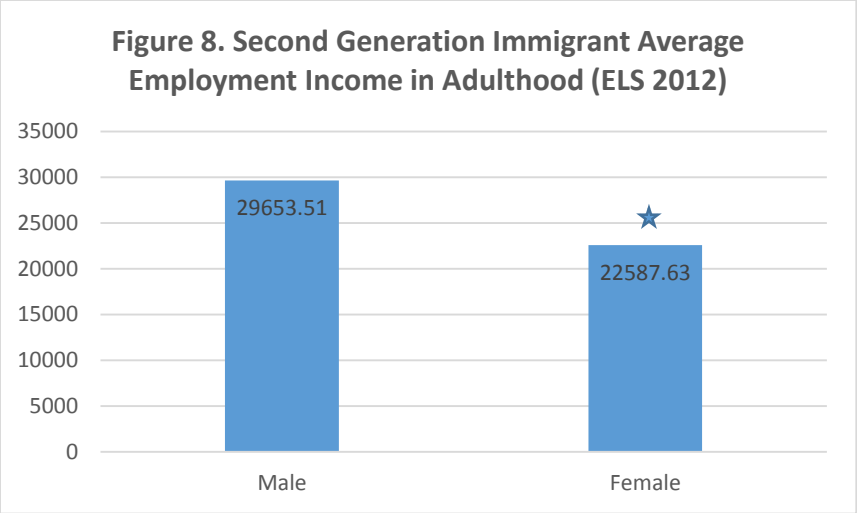
Chapter Seven: The Long Influence of Social Embeddedness 10 Years Later for Second Generation Immigrants

This chapter explores the enduring impact of social embeddedness for second generation immigrant youth from adolescence into adulthood. I use data from the most recent follow-up of ELS in 2012 to examine if the quality of social relationships during adolescence is directly related to adult status attainment (including postsecondary attainment, income) and well-being (e.g. civic participation) when immigrant adults are between ages 2 5- 28. Additionally, the previous results in Chapter Six have illustrated the importance of social embeddedness in shaping early education, work and family formation patterns from ages 19 - 21. Therefore I also examine if the longitudinal relationship of social embeddedness from adolescence to adulthood is mediated by these early education, work and family patterns.

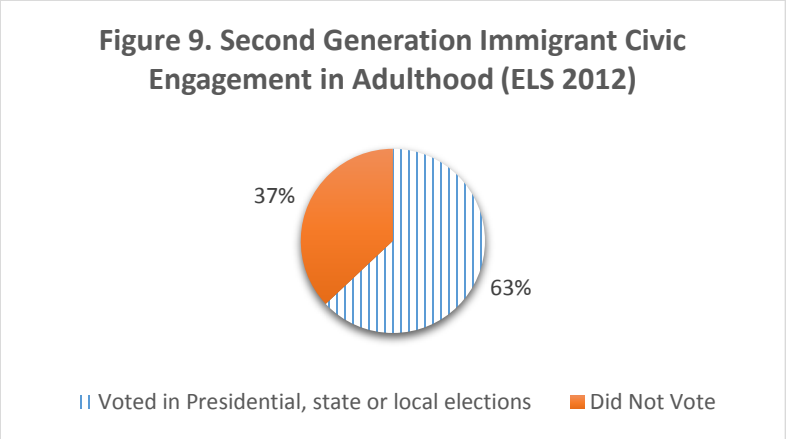
Ten years after the first survey in high school, second generation immigrants in the sample have reached adulthood. By 2012, 33 percent have attained a bachelor's degree which is much lower than the national average of 59 percent[2] for college students who pursued a degree around the same year. Twenty-nine percent of second generation immigrants enrolled and participated in post-secondary education but did not attain a credential or degree. Figure 10 illustrates the education persistence and pathways of immigrant youth to further understand this group and where they may be dropping out of the education pipeline. Of the 85 percent who graduate on-time from high school, 58 percent are still enrolled in a two- or four-year post-secondary institution the beginning of the second semester of the first year (January 2006). While a majority of those enrolled in a four-year institution do graduate, only 40 percent of those enrolled in two-year institutions graduate with a degree.

[2] 2012 graduation rate for first-time, full-time undergraduate students who began their pursuit of a bachelor's degree at a 4-year degree-granting institution in fall 2006 was 59 percent. http://nces.ed.gov/fastfacts/display.asp?id=40



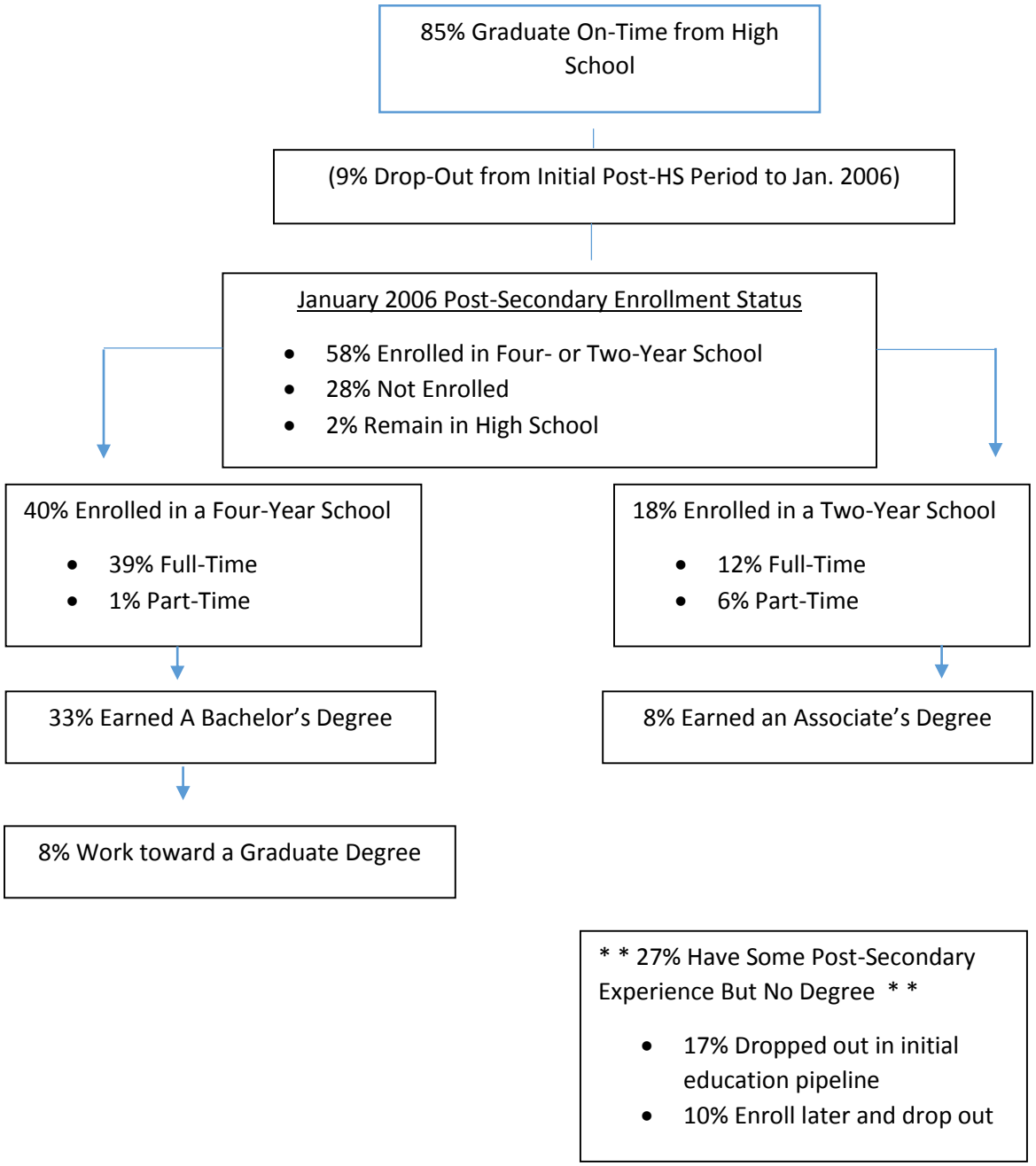


In addition to educational attainment, on average for those second generation immigrant adults who are employed, they are earning $25,975.51. Female second generation immigrant adults make significantly less than males (see Figure 8), but they are also significantly more likely to be employed part-time. At this point in adulthood, there are no racial group differences seen in employment income.



Civic engagement is an important issue for immigrants and second generation immigrants, especially in discussions of acculturation and belonging. As another measure of adulthood status and well-being, I examine if second generation adults voted in a Presidential, state or local election during adulthood. Sixty-three percent reported voting in either the 2008 Presidential election or another mid-election between the years of 2009 to 2011. By comparison, second generation adults in this national sample are voting at substantially higher percentages than the rate for individuals 18 to 29 in the U.S. aggregated by the Census Bureau was about 49 percent (File, 2013).

Figure 10. Education pathway and persistence of second generation immigrant youth (ELS 2002)



Educational Attainment in Adulthood

Table 16 to 19 presents the odd ratios from ordinal regression analyses, which examine the extent to which indicators of the intensity and quality of relationships in adolescence are related to educational attainment 10 years later in adulthood. Similar to the models presented earlier, the odds ratios indicate

the odds of second generation immigrant adults having higher educational attainment (ranging from no high school to an advanced, post-bachelor degree). Model 1 sets up a baseline with individual characteristics, Model 2 incorporates the family and neighborhood characteristics, Model 3 adds in the social relationship measures by domain, and Model 4 is the final model with the inclusion of early adulthood education, work and family patterns. These patterns were analyzed in Chapter 5 and include: on-time high school graduation, enrollment and work, and having a child. An additional family pattern measure is living arrangements and it measures if the immigrant youth was living with parents, a spouse, others (e.g. siblings, friends), or alone during early adulthood.

Male second generation immigrant adults have lower odds of attaining higher education compared to female immigrant adults, by 36 percent (see Model 1). Asian, Black and White immigrants all have higher odds of attaining more education compared to Hispanic second generation immigrant adults. Mother's education and household income have a positive association with higher education in adulthood, and number of people in the household has a negative relation. The inclusion of family and neighborhood characteristics reduces some of the racial group differences in educational attainment in adulthood (see Model 2).

Table 16. Ordinal Regression Analysis of Adulthood Educational Attainment by Social Relationships in Adolescence: Family Domain (odds ratio, N=1624)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.64 (.06)***	.54 (.06)***	.62 (.07)***	.65 (.09)**
Asian[1]	3.0 (.35)***	2.6 (.40)***	2.6 (.42)*	1.7 (.30)*
Black[1]	2.8 (.54)***	2.5 (.78)**	1.9 (.62)*	.96 (.35)
White [1]	2.6 (.38)***	1.8 (.39)*	1.8 (.44)	1.4 (.36)
Other[1]	2.2 (.43)***	1.8 (.45)*	2.0 (.55)*	1.9 (.54)*
Family Characteristics				
Mother's Education		1.1 (.03)**	1.1 (.03)*	1.0 (.04)
Household Income		1.2 (.03)*	1.2 (.03)*	1.1 (.03)*
Number of People in Household		.86 (.03)*	.89 (.03)*	1.0 (.05)
Parent's Low English Fluency		1.2 (.18)	1.2 (.25)	1.3 (.25)
Neighborhood Characteristics				
Disadvantage Index		.95 (.02)	.96 (.02)	.97 (.03)
Community Integration		1.1 (.14)	1.1 (.16)	1.0 (.16)
Intensity and Quality of Family Relationships				
Parent-Child Communication			2.0 (.34)*	1.4 (.26)*
Valuing Living Close to Home			.82 (.09)	1.0 (.14)
Mother's Aspiration for College			1.4 (.28)	1.1 (.21)
College Info from Family			1.3 (.31)	1.0 (.22)
Intergenerational Closure			1.1 (.03)	1.0 (.03)
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				2.9 (.88)*
Employed Only[2]				.11 (.03)*
Employed and Enrolled[2]				.92 (.04)
Unemployed and Not Enrolled[2]				.37 (.07)*

Table 16 (cont.) Ordinal Regression Analysis of Adulthood Educational Attainment by Social Relationships in Adolescence: Family Domain (odds ratio, N=1624)

	Model 1	Model 2	Model 3	Model 4
Early Adulthood Family Pattern				
Living with Parents[3]				.38 (.06)**
Living Alone[3]				.95 (.30)
Living with Spouse[3]				.19 (.11)*
Having a Child				.47 (.18)*

[1] Compared to Hispanic adults

[2] Compared to Enrolled Only [3] Compared to Living with Others

[+]p<.10. *p<.05. **p<.01. ***p<.001

As shown in Table 16 and in previous chapters, parent-child communication remains significant in influencing educational success of second generation immigrants in adulthood, controlling for family and neighborhood characteristics and early adulthood patterns. That is, each one unit increase in parent-child communication increases the odds of more educational attainment by 1.4 (see Model 4), controlling for race/ethnicity, sex, and family background. This finding suggests there may be a significant and enduring impact of discussing with parents about topics such as school activities and recent news on educational pathways among second generation immigrants. Some effect of this parent-child communication is moderated by early adulthood patterns. Graduating on-time from high school has a large, significant effect on adulthood educational attainment, as expected. Conversely, being employed only or disconnected compared to being enrolled only in early adulthood has a negative association with overall educational attainment—suggesting that there is a difficulty in returning to an education pathway after a delay or disconnection early on in the transition to adulthood. Early adulthood family patterns also have significant effect on adulthood educational attainment. Second generation immigrant young adults who live with their parents compared to living with others (e.g. friends, siblings) are 62 percent less likely to have higher educational attainment. Even more substantial, living with a spouse decreases the odds of attaining higher education by 81 percent and having a child by 53 percent (see Model 4). The addition of early adulthood patterns explains the Black-Hispanic racial gap in educational attainment, as shown in Tables 20 - 23, and accounts for a significant part of the Asian-Hispanic gap.

Table 17. Ordinal Regression Analysis of Adulthood Educational Attainment by Social Relationships in Adolescence: Peer Domain (odds ratio, N=1624)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.64 (.06)***	.54 (.06)***	.65 (.07)***	.66 (.09)**
Asian[1]	3.0 (.35)***	2.7 (.40***	1.9 (.29)***	1.5 (.25)*
Black[1]	2.8 (.54)***	2.5 (.78)**	2.0 (.63)*	1.0 (.38)
White [1]	2.6 (.38)***	1.8 (.39)**	1.5 (.31)*	1.3 (.29)
Other[1]	2.2 (.43)***	1.8 (.45)*	1.7 (.43)*	1.6 (.45)
Family Characteristics				
Mother's Education		1.1 (.03)***	1.1 (.03)*	1.0 (.03)
Household Income		1.2 (.03)***	1.1 (.03)*	1.1 (.03)*
Number of People in Household		.86 (.03)***	.88 (.03)**	1.0 (.05)
Parent's Low English Fluency		1.2 (.18)	1.1 (.18)	1.0 (.17)
Neighborhood Characteristics				
Disadvantage Index		.95 (.02)	.95 (.02)	.96 (.03)
Community Integration		1.1 (.14)	1.1 (.14)	1.1 (.14)
Intensity and Quality of Peer Relationships				
Leisure Time with Friends			.95 (.09)	.97 (.11)
Peers Value Academics			1.1 (.19)	1.0 (.19)
Peers Value Social Engagement			.95 (.14)	.98 (.21)
Peers Value Employment			.89 (.11)	.99 (.14)
Peers Value Community Engagement			1.1 (.11)	1.0 (.12)
Peers Plan for Full-Time Job			.88 (.05)**	.97 (.06)
Peers Plan for Community College			.90 (.06)	.92 (.07)
Peers Plan for Four-year college			1.7 (.10)***	1.5 (.10)***
College Entrance Info from Friends			1.3 (.21)	1.0 (.15)
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				2.3 (.61)*
Employed Only[2]				.12 (.03)**
Employed and Enrolled[2]				.93 (.04)
Unemployed and Not Enrolled[2]				.44 (.07)**
Early Adulthood Family Pattern				
Living with Parents[3]				.46 (.07)**
Living Alone[3]				1.1 (.33)
Living with Spouse[3]				.24 (.12)*
Having a Child				.80 (.29)

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Other
[+]p<.10. *p<.05. **p<.01. ***p<.001

Table 17 includes the peer domain measures on adulthood educational attainment, and again peer's plans for after high school has an enduring effect on education. Model 3 shows that immigrant adolescents who are more likely to report having peers who plan for a full-time job have lower odds of attaining higher education, and those with peers planning for a four-year college have increased odds. The addition of early education, work and family patterns, however, reduces the contextual effect of peers who plan for a full-time job to non-significant, suggesting that this influence largely plays a part in shaping educational and occupational pathways during the transition to adulthood. However, even with the early adulthood patterns, having a peer group in adolescence that plans to attend a four-year college is significant and positive ten years later in attaining higher education. Each one unit increase in second generation immigrant adolescent's report of having friends who plan to enroll in a four-year institution after high school increases the odds of more educational attainment by 1.5.

Table 18 examines the enduring consequence of the intensity and quality of school relationships on educational attainment in adulthood. Model 3 finds that nearly all the school domain measures have a positive association with increases in educational attainment in adulthood. Immigrant adolescents who had a supportive teacher relationship, participated in school activities and obtained college entrance information from school were likely to have more educational attainment ten years later than immigrants who were not as embedded in their schools. However, the effect of supportive teacher relationships and obtaining college entrance information from school are moderated through early adulthood education, work and family patterns and are reduced non-significant in Model 4. Participation in school activities, however, continues to have an independent effect even with the inclusion of early adulthood patterns. Specifically, a one unit increase in participation in school activities increases the odds of attaining higher education by 1.3, controlling for family and neighborhood characteristics and early adulthood patterns.

Table 19 shows that stronger ties to community during adolescence is associated with educational outcomes in adulthood, in part, through its impact on early work and education patterns. A one unit increase in volunteering during high school increases the odds of attaining higher education by 1.9, controlling for family and neighborhood characteristics and early adulthood patterns. This suggests that the individual effect of volunteering persists into adulthood even with additive education measures such as high school graduation factored into the model.

Table 18. Ordinal Regression Analysis of Adulthood Educational Attainment by Social Relationships in Adolescence: School Domain (odds ratio, N=1624)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.64 (.06)***	.54 (.06)***	.65 (.08)**	.70 (.09)*
Asian[1]	3.0 (.35)***	2.7 (.40***	2.4 (.39)***	1.6 (.29)*
Black[1]	2.8 (.54)***	2.5 (.78)**	2.6 (.81)*	1.3 (.46)
White [1]	2.6 (.38)***	1.8 (.39)**	1.7 (.39)*	1.3 (.32)
Other[1]	2.2 (.43)***	1.8 (.45)*	1.8 (.48)*	1.7 (.48)
Family Characteristics				
Mother's Education		1.1 (.03)***	1.1 (.03)**	1.0 (.03)
Household Income		1.2 (.03)***	1.1 (.03)*	1.1 (.03)*
Number of People in Household		.86 (.03)***	.89 (.03)**	1.0 (.05)
Parent's Low English Fluency		1.2 (.18)	1.0 (.17)	1.0 (.18)
Neighborhood Characteristics				
Disadvantage Index		.95 (.02)	.96 (.02)	.97 (.03)
Community Integration		1.1 (.14)	1.2 (.15)	1.1 (.15)
Intensity and Quality of School Relationships				
Supportive Teacher Relationship			1.2 (.11)*	1.0 (.10)
Time in Extracurricular Activities			1.0 (.02)*	1.0 (.02)
Participation in School Activities			1.4 (.08)**	1.3 (.08)**
College Entrance Info from School			1.3 (.25)+	1.0 (.22)
Work-Based Program Participation			.92 (.11)	.92 (.13)
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				3.2 (.87)***
Employed Only[2]				.11 (.03)***
Employed and Enrolled[2]				.91 (.04)
Unemployed and Not Enrolled[2]				.40 (.06)***
Early Adulthood Family Pattern				
Living with Parents[3]				.46 (.07)***
Living Alone[3]				1.1 (.32)
Living with Spouse[3]				.23 (.11)**
Having a Child				.74 (.28)

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Other
+p<.10. *p<.05. **p<.01. ***p<.001

Table 19. Ordinal Regression Analysis of Adulthood Educational Attainment by Social Relationships in Adolescence: Community Domain (odds ratio, N=1624)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.64 (.06)***	.54 (.06)***	.61 (.07)***	.67 (.09)**
Asian[1]	3.0 (.35)***	2.7 (.40***	2.6 (.41)**	1.7 (.29)**
Black[1]	2.8 (.54)***	2.5 (.78)**	2.0 (.67)*	1.1 (.41)
White [1]	2.6 (.38)***	1.8 (.39)**	1.9 (.45)*	1.4 (.34)
Other[1]	2.2 (.43)***	1.8 (.45)*	1.9 (.45)*	1.6 (.47)
Family Characteristics				
Mother's Education		1.1 (.03)***	1.1 (.03)**	1.0 (.03)
Household Income		1.2 (.03)***	1.1 (.03)*	1.1 (.03)**
Number of People in Household		.86 (.03)***	.89 (.03)**	1.0 (.05)
Parent's Low English Fluency		1.2 (.18)	1.0 (.16)	.97 (.16)
Neighborhood Characteristics				
Disadvantage Index		.95 (.02)	.96 (.02)	.96 (.03)
Community Integration		1.1 (.14)	1.1 (.14)	1.0 (.15)
Community Relationships				
Volunteering during high school			2.5 (.36)***	1.9 (.03)***
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				3.5 (1.0)***
Employed Only[2]				.12 (.03)***
Employed and Enrolled[2]				.91 (.04)
Unemployed and Not Enrolled[2]				.44 (.07)**
Early Adulthood Family Pattern				
Living with Parents[3]				.44 (.07)**
Living Alone[3]				1.0 (.31)
Living with Spouse[3]				.21 (.12)*
Having a Child				.69 (.27)

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Other
$^{+}$p<.10. *p<.05. **p<.01. ***p<.001

Table 20. Regression Analysis of Adulthood Employment Income by Social Relationships in Adolescence: Family Domain (Natural Log of Income, Regression Coefficients, N=1157)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.20 (.06)**	.16 (.07)*	.16 (.07)*	.13 (.08)
Asian[1]	-.01 (.07)	-.12 (.09)	-.12 (.09)	-.20 (.10)*
Black[1]	-.23 (.12)+	-.22 (.18)	-.21 (.19)	-.41 (.20)*
White [1]	.05 (.09)	-.03 (.11)	-.01 (.12)	.01 (.12)
Other[1]	.07 (.12)	-.15 (.15)	-.13 (.16)	-.12 (.16)
Employed Full-Time in Adulthood	.95 (.06)***	.85 (.07)***	.92 (.08)***	.90 (.08)**
Educational Attainment in Adulthood	.08 (.01)***	.05 (.02)**	.05 (.02)*	-.00 (.02)
Family Characteristics				
Mother's Education		.03 (.02)	.02 (.02)	.02 (.02)
Household Income		.02 (.01)	.01 (.01)	.00 (.01)
Number of People in Household		-.01 (.02)	-.00 (.02)	.00 (.03)
Parent's Low English Fluency		-.02 (.09)	.02 (.10)	.04 (.10)
Neighborhood Characteristics				
Disadvantage Index		.01 (.01)	.01 (.01)	.01 (.01)
Community Integration		.04 (.08)	.00 (.08)	-.05 (.08)
Intensity and Quality of Family Relationships				
Parent-Child Communication			-.02 (.09)	-.08 (.09)
Valuing Living Close to Home			-.02 (.07)	.00 (07)
Mother's Aspiration for College			.19 (.10)*	.14 (.11)
College Info from Family			.20 (.10)+	.20 (.11)+
Intergenerational Closure			-.00 (.02)	-.02 (.02)
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				.37 (.15)*
Employed Only[2]				-.00 (.15)
Employed and Enrolled[2]				-.04 (.03)
Unemployed and Not Enrolled[2]				-.37 (.10)**
Early Adulthood Family Pattern				
Living with Parents[3]				-.30 (.09)**
Living Alone[3]				-.01 (.18)
Living with Spouse[3]				-.21 (.31)
Having a Child				-.31 (.21)

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Other
+p<.10. *p<.05. **p<.01. ***p<.001

Employment Income in Adulthood

Tables 20 to 23 presents the regression analysis predicting income in adulthood by the four social domains. Similar to the analysis pattern used for educational attainment, Model 1 includes individual characteristics plus current employment and educational status; Model 2 incorporates family and neighborhood characteristics; Model 3 adds in the social domain measures; and Model 4 is the final model with inclusion of early education, work and family patterns. The results show that second generation immigrant males make more than their female counterparts, and Black immigrant adults make less than Hispanic immigrant adults—though this racial difference is reduced with the addition of family and neighborhood characteristics. Analysis of current adulthood status find that being employed full-time and increased educational attainment increases employment income in adulthood, as expected. Model 2 shows that family and neighborhood characteristics measured in adolescence do not have an enduring effect on adulthood employment income, however it does reduce the gender and racial differences.

Table 20 includes family domain measures, and mother's aspiration for youth to attend college remains a significant, positive association for adulthood employment income. However, this family relationship effect is moderated by early adulthood education, work and family patterns. Early adulthood education and work status are significant in affecting adulthood income, as expected. Adulthood employment income is 44 percent higher for second generation immigrants who graduate on-time from high school. Immigrant youth who were disconnected during early adulthood (i.e. unemployed and not enrolled) are found to have a 31 percent decrease in employment income in adulthood. Early adulthood family patterns are also found to be significant. In particular, living with parents compared to living with others (e.g. friends) during early adulthood results in a 26 percent decrease in employment income in adulthood.

Table 21. Regression Analysis of Adulthood Employment Income by Social Relationships in Adolescence: Peer Domain (Natural Log of Income, Regression Coefficients, N=1157)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.20 (.06)**	.16 (.07)*	.17 (.07)*	.14 (.08)+
Asian[1]	-.01 (.07)	-.12 (.09)	-.15 (.09)	-.23 (.09)*
Black[1]	-.23 (.12)+	-.22 (.18)	-.21 (.18)	-.45 (.19)*
White [1]	.05 (.09)	-.03 (.11)	-.07 (.11)	-.10 (.11)
Other[1]	.07 (.12)	-.15 (.15)	-.12 (.15)	-.14 (.15)
Employed Full-Time in Adulthood	.95 (.06)***	.85 (.07)***	.84 (.07)***	.85 (.07)**
Educational Attainment in Adulthood	.08 (.01)***	.05 (.02)**	.03 (.02)	-.02 (.02)
Family Characteristics				
Mother's Education		.03 (.02)	.01 (.01)	.01 (.02)
Household Income		.02 (.01)	.01 (.01)	.00 (.01)
Number of People in Household		-.01 (.02)	-.01 (.02)	.02 (.03)
Parent's Low English Fluency		-.02 (.09)	.00 (.09)	.03 (.09)
Neighborhood Characteristics				
Disadvantage Index		.01 (.01)	.01 (.01)	.02 (.01)
Community Integration		.04 (.08)	.03 (.07)	.01 (.07)
Intensity and Quality of Peer Relationships				
Leisure Time with Friends			.06 (.05)	.03 (.05)
Peers Value Academics			-.17 (.12)	-.15 (.12)
Peers Value Social Engagement			.01 (.09)	.03 (.09)
Peers Value Employment			-.01 (.07)	.01 (.08)
Peers Value Community Engagement			.08 (.07)	.06 (.07)
Peers Plan for Full-Time Job			-.04 (.03)	-.03 (.03)
Peers Plan for Community College			-.06 (.04)	-.09 (.04)*
Peers Plan for Four-year college			.11 (.03)**	.07 (.03)*
College Entrance Info from Friends			.00 (.08)	-.03 (.08)
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				.31 (.14)*
Employed Only[2]				-.08 (.13)
Employed and Enrolled[2]				-.01 (.02)
Unemployed and Not Enrolled[2]				-.30 (.09)**
Early Adulthood Family Pattern				
Living with Parents[3]				-.26 (.08)**
Living Alone[3]				-.05 (.16)
Living with Spouse[3]				-.29 (.29)
Having a Child				-.46 (.18)*

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Other
+p<.10. *p<.05. **p<.01. ***p<.001

Table 21 examines the longitudinal effect of the intensity and quality of peer relationships during adolescence on adulthood employment income. Second generation immigrant adults who were more likely to have peers who planned to attend a two-year college after high school in adolescence were found to have a decrease in adulthood income ten years later, controlling for family and neighborhood characteristics and early adulthood statuses. Conversely, again emerging important, immigrant adults with peers who planned to enroll in a four-year college after high school had a 7 percent increase in employment income in adulthood. Early adulthood education, work and family patterns hold a similar relationship as found in Table 20, but here having a child in early adulthood is significant and negatively associated with adulthood employment income. That is, having a child in early adulthood is found to have a 37 percent decrease in employment income for second generation immigrant adults.

The intensity and quality of school relationships during adolescence was not found to be significant in affecting employment income in adulthood, as shown in Table 22. Community relationships, as supported in Table 27 however, is significant and positive in affecting adulthood employment income. Second generation immigrant adults who performed unpaid volunteer work during high school were found to have a 19 percent increase in adulthood employment income, controlling for family and neighborhood characteristics and early adulthood patterns.

Table 22. Regression Analysis of Adulthood Employment Income by Social Relationships in Adolescence: School Domain (Natural Log of Income, Regression Coefficients, N=1157)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.20 (.06)**	.16 (.07)*	.17 (.07)*	.15 (.08)*
Asian[1]	-.01 (.07)	-.12 (.09)	-.13 (09)	-.22 (.09)*
Black[1]	-.23 (.12)+	-.22 (.18)	-.26 (.19)	-.40 (.19)*
White [1]	.05 (.09)	-.03 (.11)	-.04 (.12)	-.06 (.12)
Other[1]	.07 (.12)	-.15 (.15)	-.15 (.15)	-.16 (.16)
Employed Full-Time in Adulthood	.95 (.06)***	.85 (.07)***	.85 (.08)***	.87 (.08)***
Educational Attainment in Adulthood	.08 (.01)***	.05 (.02)**	.04 (.02)*	-.00 (.02)
Family Characteristics				
Mother's Education		.03 (.02)	.01 (.02)	.02 (.02)
Household Income		.02 (.01)	.01 (.01)	.01 (.01)
Number of People in Household		-.01 (.02)	.00 (.02)	.04 (.03)
Parent's Low English Fluency		-.02 (.09)	-.02 (.09)	.01 (.10)
Neighborhood Characteristics				
Disadvantage Index		.01 (.01)	.01 (.01)	.02 (.01)
Community Integration		.04 (.08)	.03 (.07)	.00 (.08)
Intensity and Quality of School Relationships				
Supportive Teacher Relationship			.00 (.05)	-.06 (.05)
Time in Extracurricular Activities			.00 (.00)	-.00 (.00)
Participation in School Activities			.02 (.03)	.01 (.03)
College Entrance Info from School			.11 (.13)	.12 (.12)
Work-Based Program Participation			.10 (.08)	.05 (.08)
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				.37 (.14)*
Employed Only[2]				-.16 (.14)
Employed and Enrolled[2]				-.04 (.03)
Unemployed and Not Enrolled[2]				-.33 (.09)**
Early Adulthood Family Pattern				
Living with Parents[3]				-.30 (.09)**
Living Alone[3]				-.08 (.17)
Living with Spouse[3]				-.24 (.30)
Having a Child				-.53 (.20)**

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Other
+p<.10. *p<.05. **p<.01. ***p<.001

Table 23. Regression Analysis of Adulthood Employment Income by Social Relationships in Adolescence: Community Domain (Natural Log of Income, Regression Coefficients, N=1157)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.20 (.06)**	.16 (.07)*	.23 (.07)**	.19 (.07)*
Asian[1]	-.01 (.07)	-.12 (.09)	-.15 (.09)	-.26 (.09)**
Black[1]	-.23 (.12)+	-.22 (.18)	-.32 (.19)	-.57 (.20)**
White [1]	.05 (.09)	-.03 (.11)	-.06 (.12)	-.12 (.12)
Other[1]	.07 (.12)	-.15 (.15)	-.08 (.16)	-.12 (.15)
Employed Full-Time in Adulthood	.95 (.06)***	.85 (.07)***	.90 (.08)**	.91 (.08)**
Educational Attainment in Adulthood	.08 (.01)***	.05 (.02)**	.04 (.021)*	-.02 (.02)
Family Characteristics				
Mother's Education		.03 (.02)	.01 (.02)	.01 (.02)
Household Income		.02 (.01)	.01 (.01)	.00 (.01)
Number of People in Household		-.01 (.02)	-.00 (.02)	.00 (.01)
Parent's Low English Fluency		-.02 (.09)	-.04 (.09)	-.01 (.09)
Neighborhood Characteristics				
Disadvantage Index		.01 (.01)	.02 (.01)	.02 (.01)
Community Integration		.04 (.08)	.01 (.08)	.00 (.07)
Community Relationships				
Volunteering during High School			.25 (.08)**	.18 (.09)*
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				.57 (.15)***
Employed Only[2]				-.01 (.14)
Employed and Enrolled[2]				-.04 (.02)
Unemployed and Not Enrolled[2]				-.31 (.09)**
Early Adulthood Family Pattern				
Living with Parents[3]				-.28 (.09)**
Living Alone[3]				-.14 (.17)
Living with Spouse[3]				-.21 (.29)
Having a Child				-.65 (.21)**

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Other
+p<.10. *p<.05. **p<.01. ***p<.001

Civic Engagement in Adulthood

Tables 24 to 27 presents the logit regression analysis predicting civic engagement in adulthood of second generation immigrants. These results illustrate how meaningful connections with individuals, communities and institutions and resources embedded within those networks can influence immigrant adult's voting. Similar to the analysis pattern of educational attainment and employment income, Model 1 is the baseline model with individual characteristics, including adulthood income and educational attainment (as socioeconomic status is often linked to voting activity); Model 2 adds in family and neighborhood characteristics in adolescence; Model 3 incorporates the social domain measures; and Model 4 is the final model with early adulthood education, work and family patterns.

Second generation male immigrant adults were found to be 40 percent less likely to vote compared to their female counterparts. Black and White second generation immigrants were found to be significantly more likely to vote than Hispanic immigrant adults (see Model 1). As expected, current educational attainment positive influences the likelihood of voting. Model 2 found that the inclusion of family and neighborhood characteristics measured in adolescence did not have a significant effect into adulthood ten years later.

The addition of family domain measures in Table 24 shows that mother's aspiration for youth to attend college reported in adolescence has a positive association with increased voting in adulthood. This family effect however is reduced with the inclusion of early adulthood patterns. Education, especially high school graduation and enrollment in college, is found to be significant and positive for increased voting. Second generation immigrants who graduate on-time from high school have 2.0 increased odds of voting more in adulthood. As well, immigrant adults who were employed only or disconnected compared to being enrolled in college were about 50 percent less likely to vote in adulthood. Being employed and enrolled compared to being enrolled only did not have an effect on voting activity, suggesting that college enrollment solely is a positive influence. Model 4 also shows that while early adulthood living arrangements did not have an effect on adulthood voting, having a child in early adulthood decreased the odds of voting by 70 percent in adulthood.

Table 24. Logit Regression Analysis of Adulthood Civic Engagement by Social Relationships in Adolescence: Family Domain (odds ratio, N=1624)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.60 (.08)***	.49 (.08)**	.50 (.09)**	.44 (.08)***
Asian[1]	.86 (.13)	.88 (.18)	.74 (.16)	.60 (.15)*
Black[1]	2.9 (1.0)**	3.8 (2.2)*	4.3 (2.8)*	3.4 (2.3)+
White [1]	1.8 (.39)*	1.4 (.37)	1.3 (.41)	1.2 (.40)
Other[1]	1.2 (.35)	1.3 (.45)	1.2 (.46)	1.2 (.50)
Income in Adulthood	1.0 (.00)*	1.0 (.00)*	1.0 (.00)*	1.0 (.01)*
Educational Attainment in Adulthood	1.2 (.04)**	1.1 (.05)*	1.1 (.05)*	1.0 (.05)
Family Characteristics				
Mother's Education		1.1 (.04)	1.1 (.05)*	.99 (.05)
Household Income		.99 (.04)	1.0 (.05)	1.0 (.05)
Number of People in Household		1.0 (.05)	1.0 (.04)	1.0 (.08)
Parent's Low English Fluency		1.1 (.25)	1.4 (.34)	1.6 (.44)*
Neighborhood Characteristics				
Disadvantage Index		.94 (.03)	.94 (.04)	.93 (.04)
Community Integration		1.2 (.20)	1.3 (.26)	1.4 (.30)
Intensity and Quality of Family Relationships				
Parent-Child Communication			1.1 (.22)	.99 (.22)
Valuing Living Close to Home			.83 (.15)	.90 (.17)
Mother's Aspiration for College			1.6 (.41)*	1.4 (.38)
College Info from Family			.95 (.22)	.86 (.20)
Intergenerational Closure			.97 (.04)	.97 (.05)
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				2.0 (.81)*
Employed Only[2]				.48 (.17)*
Employed and Enrolled[2]				1.0 (.26)
Unemployed and Not Enrolled[2]				.52 (.14)*
Early Adulthood Family Pattern				
Living with Parents[3]				1.0 (.26)
Living Alone[3]				.87 (.38)
Living with Spouse[3]				.69 (.58)
Having a Child				.31 (.17)*

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Others
+p<.10. *p<.05. **p<.01. ***p<.001

Table 25. Logit Regression Analysis of Adulthood Civic Engagement by Social Relationships in Adolescence: Peer Domain (odds ratio, N=1624)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.60 (.08)***	.49 (.08)**	.49 (.08)***	.45 (.08)***
Asian[1]	.86 (.13)	.88 (.18)	.77 (.16)	.62 (.14)*
Black[1]	2.9 (1.0)**	3.8 (2.2)*	3.7 (.21)*	2.7 (1.6)+
White [1]	1.8 (.39)*	1.4 (.37)	1.3 (.38)	1.3 (.40)
Other[1]	1.2 (.35)	1.3 (.45)	1.3 (.46)	1.1 (.44)
Income in Adulthood	1.0 (.00)*	1.0 (.00)*	1.0 (.00)*	1.0 (.00)
Educational Attainment in Adulthood	1.2 (.04)**	1.1 (.05)*	1.1 (.05)	.97 (.05)
Family Characteristics				
Mother's Education		1.1 (.04)	1.0 (.05)	1.0 (.05)
Household Income		.99 (.04)	.99 (.04)	1.0 (.04)
Number of People in Household		1.0 (.05)	1.0 (.05)	1.0 (.07)
Parent's Low English Fluency		1.1 (.25)	1.1 (.26)	1.3 (.34)
Neighborhood Characteristics				
Disadvantage Index		.94 (.03)	.92 (.03)+	.91 (.03)*
Community Integration		1.2 (.20)	1.2 (.21)	1.2 (.24)
Intensity and Quality of Peer Relationships				
Leisure Time with Friends			.86 (.11)	.83 (.11)
Peers Value Academics			.73 (.19)	.68 (.21)
Peers Value Social Engagement			.96 (.22)	.96 (.22)
Peers Value Employment			1.1 (.24)	1.2 (.22)
Peers Value Community Engagement			.92 (.14)	.98 (.17)
Peers Plan for Full-Time Job			.73 (.06)*	.76 (.07)*
Peers Plan for Community College			1.1 (.10)	1.1 (.12)
Peers Plan for Four-year college			1.2 (.11)*	1.1 (.11)
College Entrance Info from Friends			1.1 (.25)	1.1 (.23)
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				2.0 (.69)*
Employed Only[2]				.44 (.15)*
Employed and Enrolled[2]				1.0 (.07)
Unemployed and Not Enrolled[2]				.56 (.13)*
Early Adulthood Family Pattern				
Living with Parents[3]				.94 (.21)
Living Alone[3]				.79 (.31)
Living with Spouse[3]				.72 (.55)
Having a Child				.60 (.27)

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Others
+p<.10. *p<.05. **p<.01. ***p<.001

Furthering supporting the significance of education on voting activity, Table 25 presents the peer domain measures on civic engagement. Immigrant youth who were more likely to have peers who plan for a full-time job after high school were 24 percent less likely to have voted in adulthood, even after controlling for family and neighborhood characteristics and early adulthood patterns. As existing research has found there are different institutional opportunities during the transition to adulthood that fosters civic engagement and young adults that are not college-bound have decreasing alternative sites for civic opportunity. The school domain as shown in Table 26 is not found to be significant in influencing civic engagement. Community participation during adolescence, however, did positively affect adulthood civic engagement, as expected. Specifically, second generation immigrant adults who performed unpaid volunteer work during high school had an increased odds of 1.3 in voting during adulthood.

In this chapter, I examine the association of social embeddedness across different domains during adolescence has an enduring relationship in shaping the education, income and civic participation of second generation immigrant adults ten years later. The quality of social relationships with family and peers, and within schools and communities that second generation immigrants developed during adolescence had a significant effect on adulthood educational attainment. In particular, parent-child communication, having a peer group that plans to attend a four-year college after high school, participation in school activities and volunteering during high school were significant ten years later in higher educational attainment of second generation immigrant adults. However, adulthood employment income as found to be more significantly influenced by early adulthood education, work and family patterns, with the exception of the positive association of volunteering during high school (Table 23). Holding the intensity and quality of social relationships constant, graduating on-time from high school has a positive effect on employment income, while living with parents compared to living with others in early adulthood had a negative effect six years later. Lastly, I examined if social embeddedness in adolescence is related to early adulthood civic engagement ten years later. Indeed, as measured in adolescence, mother's college aspiration, peer's plans after high school, and volunteering during high school all had a significant effect on adulthood civic engagement. However, some of these were mediated by the effect of early education, work and family patterns. Interestingly though, having a peer group that planned for a full-time job and volunteering during high school remained significant ten years later, controlling for early adulthood patterns. These results illustrates the importance of embeddedness within positive peer groups and communities early on in shaping civic engagement, and the likelihood that second generation immigrants will vote in adulthood.

Table 26. Logit Regression Analysis of Adulthood Civic Engagement by Social Relationships in Adolescence: School Domain (odds ratio, N=1624)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.60 (.08)***	.49 (.08)**	.52 (.09)**	.47 (.09)**
Asian[1]	.86 (.13)	.88 (.18)	.86 (.18)	.69 (.16)
Black[1]	2.9 (1.0)**	3.8 (2.2)*	5.5 (3.5)**	4.2 (2.8)*
White [1]	1.8 (.39)*	1.4 (.37)	1.3 (.36)	1.1 (.25)
Other[1]	1.2 (.35)	1.3 (.45)	1.4 (.52)	1.3 (.52)
Income in Adulthood	1.0 (.00)*	1.0 (.00)*	1.0 (.00)*	1.0 (.00)
Educational Attainment in Adulthood	1.2 (.04)**	1.1 (.05)*	1.1 (.05)*	.99 (.05)
Family Characteristics				
Mother's Education		1.1 (.04)	1.0 (.04)	1.0 (.05)
Household Income		.99 (.04)	.99 (.04)	1.0 (.04)
Number of People in Household		1.0 (.05)	1.0 (.06)	1.0 (.04)
Parent's Low English Fluency		1.1 (.25)	1.2 (.28)	1.4 (.36)
Neighborhood Characteristics				
Disadvantage Index		.94 (.03)	.93 (.07)	.92 (.03)+
Community Integration		1.2 (.20)	1.2 (.22)	1.3 (.25)
Intensity and Quality of School Relationships				
Supportive Teacher Relationship			1.2 (.14)	1.1 (.15)
Time in Extracurricular Activities			1.0 (.01)	.99 (.01)
Participation in School Activities			1.1 (.08)	1.0 (.08)
College Entrance Info from School			1.2 (.33)	1.2 (.34)
Work-Based Program Participation			1.1 (.20)	.97 (.19)
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				2.1 (.77)*
Employed Only[2]				.46 (.15)*
Employed and Enrolled[2]				1.1 (.07)
Unemployed and Not Enrolled[2]				.58 (.13)*
Early Adulthood Family Pattern				
Living with Parents[3]				1.0 (.24)
Living Alone[3]				.77 (.31)
Living with Spouse[3]				.65 (.53)
Having a Child				.39 (.18)*

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Others
+p<.10. *p<.05. **p<.01. ***p<.001

Table 27. Logit Regression Analysis of Adulthood Civic Engagement by Social Relationships in Adolescence: Community Domain (odds ratio, N=1624)

	Model 1	Model 2	Model 3	Model 4
Individual Characteristics				
Male	.60 (.08)***	.49 (.08)**	.50 (.09)***	.44 (.08)**
Asian[1]	.86 (.13)	.88 (.18)	.76 (.16)	.57 (.14)*
Black[1]	2.9 (1.0)**	3.8 (2.2)*	4.2 (2.7)*	2.6 (1.7)
White [1]	1.8 (.39)*	1.4 (.37)	1.1 (.33)	.95 (.29)
Other[1]	1.2 (.35)	1.3 (.45)	1.2 (.47)	1.1 (.45)
Income in Adulthood	1.0 (.00)*	1.0 (.00)*	1.0 (.00)*	1.0 (.04)
Educational Attainment in Adulthood	1.2 (.04)**	1.1 (.05)*	1.1 (.05)+	.99 (.05)
Family Characteristics				
Mother's Education		1.1 (.04)	1.0 (.05)	1.0 (.05)
Household Income		.99 (.04)	1.0 (.06)	1.0 (.04)
Number of People in Household		1.0 (.05)	1.0 (.06)	.99 (.07)
Parent's Low English Fluency		1.1 (.25)	1.3 (.32)	1.6 (.41)
Neighborhood Characteristics				
Disadvantage Index		.94 (.03)	.91 (.03)*	.89 (.03)*
Community Integration		1.2 (.20)	1.2 (.23)	1.3 (.27)
Community Relationships				
Volunteering during high school			1.5 (.30)*	1.3 (.30)+
Early Adulthood Education and Work Pattern				
On-Time High School Graduation				1.9 (.75)*
Employed Only[2]				.45 (.15)*
Employed and Enrolled[2]				1.0 (.07)
Unemployed and Not Enrolled[2]				.43 (.11)**
Early Adulthood Family Pattern				
Living with Parents[3]				1.0 (.26)
Living Alone[3]				.74 (.30)
Living with Spouse[3]				.74 (.61)
Having a Child				.29 (.16)*

[1] Compared to Hispanic adults
[2] Compared to Enrolled Only
[3] Compared to Living with Others
+p<.10. *p<.05. **p<.01. ***p<.001

Chapter Eight: Discussion and Implications

The goal of my study was to examine how social embeddedness during adolescence shapes the education, work and family patterns among second generation immigrant youth from adolescence into adulthood. Prior research has shown that positive networks and relationships foster success among immigrants during adolescence. My study extends this work by demonstrating the longitudinal significance of social embeddedness across various domains during adolescence on adult outcomes ten years later of a solely second generation immigrant sample (Conchas, 2001; Jose, Ryan, & Pyro, 2012). Utilizing data from 2002 to 2012 of ELS, the first half of my study provided a picture of what the social relationships among second generation immigrants including differences by racial and ethnic group and between immigrant boys and girls. I also determined the extent to which differences in family and neighborhood characteristics explained variation in social relationships among second generation immigrant youth. In the second half of my study, I examined the short and long term consequences of social embeddedness within the family, peer, school and community during adolescence on education, occupation and family formation in early and later adulthood. My models carefully control for family structure and socioeconomic status, neighborhood characteristics, and a wide range of early adulthood education, occupation and family markers that are significant in the transition to adulthood of immigrants. Overall, I find evidence that there are significant and enduring advantages to being embedded within supportive relationships for immigrant youth and heavy costs to being disengaged from family, peers, schools and communities on adult outcomes measured ten years later. These social relationships come with access to potential and actual social and economic resources that considerably impact early transitions which in turn influence later educational and occupational attainment as well as civic participation among second generation immigrants.

Social Embeddedness among Second Generation Immigrant Adolescents

The results in Chapter 4 show that second generation immigrants are embedded in a variety of relationships with peers, their parents, and within schools and their communities. As a group, the majority of immigrant adolescents are embedded in positive family relationships where they engage in discussions with their parents about school and current events. The majority of my sample also reported that their mothers hold high educational aspirations for them and wanted them to go to college. As well, a high proportion of immigrant youth peer groups value academics and plan to attend a four-year college after high school. Within high school, they generally reported having supportive relationships with their teachers, participated in at least one school activity and volunteer in the community. Among this national sample of second generation immigrants, most report having positive experiences in high school and many begin their transition to adulthood with supportive relationships across important social domains that allow access to potential resources.

The traditional developmental perspective is that beginning in adolescence there is decreasing parenting involvement and a shift in orientation to peer group and a desire for independence (Erikson, 1968). However, studies on educational achievement find that parental involvement overall is important in supporting school motivation and success of adolescents (Kim, 2002). There are many ways parents can be involved in their adolescent's lives that are important in shaping positive development, such as setting expectations and rules; communication; monitoring and homeworking checking; or participating in the school. Research on these different measures of parental involvement find that for immigrant youth in particular, parental expectations and communication are significantly impactful on their educational achievement and attainment (Kim, 2002; Villanueva, 1996). Immigrant parents who are unfamiliar with the school system may take a hands-off approach in trusting the school to prepare their children academically; however they lend support by talking with their children at home and stressing the value of education (Auerbach, 2006). Similarly, I find that evidence that parental involvement in the form of parent-child communication, in particular, is continually significant for immigrant youth in supporting educational attainment.

In addition to the role of family in the transition to adulthood, embeddedness within peer groups is found to be important in educational success and civic engagement of second generation immigrants. Research on peer influence have focused on the importance of peers versus parents, especially during the adolescence period. Findings have suggested that while peer pressure may be effective in social behavior, such as clothing style, when peer groups do affect education, they tend to support educational goals (Brown, 1990). As well, some work has argued that youth are likely to choose friends with comparable goals and educational outlooks. Controlling for selection bias, a study for example found that previously low-scoring youth improve their test scores when they interact with high-scoring friends (Epstein, 1983). Scholars argue that race, ethnicity and immigration status are important in affecting the kinds of schools and peer networks in which youth can be embedded in, and subsequently affecting the odds of choosing peer groups that promote or discourage academic success (Kao, 2004). Kao (2001) found that black and Hispanic immigrant youth have friends with pro-school values, but they also have greater exposure to friends who have dropped out of school compared to white and Asian immigrant youth. Similar to my findings, these peer influences (especially the value of attending a four-year college) also matter a great deal in maintaining educational aspirations beyond high school (Kao, 2001).

Research on the relationship of prosocial contexts with prosocial behavior often include the school context as a primary influence on the development of youth. A strong sense of connection to schools has been found to be related to academic achievement and decreased dropout, and participation in extracurricular activities is a primary way to foster school attachment (Brown & Evans, 2002). Extracurricular activities are formalized opportunities for adolescents to be actively involved in school,

and studies have found a strong relationship between these school activities with decreased problem behaviors and increased educational attainment gains and earnings (Jenkins, 1997; Lleras, 2008). However, researchers also suggest that participation rates and school connections may vary by ethnicity, where existing disparities among ethnic groups may be reinforced through involvement in activities. Brown and Evans (2002) found that Hispanic students had significantly less involvement in different categories of extracurricular activities compared to European American students. As well, their results suggest that, regardless of ethnicity, students who participated in extracurricular activities had greater levels of school attachment and retention. Similarly, I find that Hispanic second generation immigrant adolescents spent less time in extracurricular activities and participated in a smaller number of school activities compared to all other ethnic groups. As supported in past studies, my results also show that participation in school activities was found to be significant longitudinally, and positively affected educational attainment ten years later for second generation immigrants. In particular, school activity participation explained part of the gap between Asian and Hispanic second generation immigrant educational attainment in adulthood.

Lastly, volunteering in the community emerged as significant in the transition to adulthood of second generation immigrants. There are a substantial amount of studies on the benefits of unpaid volunteer work, including increasing self-respect, life satisfaction, and physical health (Thoits & Hewitt, 2001). Volunteer work can also be seen as an investment in human capital and has been found to increase employment prospects and earnings (Day & Devlin, 1998). For adolescents, much of the research focuses on the effect of voluntary service in reducing risky and problem behaviors (Wilson & Musick, 2000). During the transition to adulthood, studies on college students find that participating in community service during undergraduate years increases academic development, life skill development and a sense of civic responsibility (Astin & Sax, 1998). In particular, controlling for individual characteristics including the propensity to engage in service, volunteering increased self-confidence, the drive to achieve, and an understanding of problems facing the community (Astin & Sax, 1998). Few studies, however, have examined the longitudinal effect of volunteer work by generational status, gender and ethnicity. My results show that volunteering in the community during high school does have a positive association with educational attainment, earnings and civic engagement in adulthood ten years later for second generation immigrants. Second generation immigrant girls, in particular, are more likely to volunteer in adolescence compared to immigrant boys and this advantage explains part of the gap in educational attainment in adulthood.

There is important variation in both the intensity and quality of social relationships between males and females and across racial groups. During adolescence, second generation immigrant girls were found to be more socially embedded within their families and communities: they speak more frequently

with their parents on topics such as schoolwork and college, place a higher value on living closer to home and perform more unpaid volunteer work within their communities during high school compared to second generation immigrant boys (see Table 2). Additionally, immigrant adolescent girls have more positive academic engagement as they report participating in more school activities, and they report having more peers who value academics and plan to attend a four-year college after high school. During the transition to adulthood, immigrant girls are more likely to graduate on-time from high school and be enrolled in college compared to working. Immigrant boys were more likely to be work-oriented and begin with lower educational expectations in junior high school (Feliciano & Rumbaut, 2005). As supported in past research on first- and second-generation immigrants, over time immigrant girls across ethnic backgrounds attain higher grades and have higher educational and professional aspirations compared to boys (Qin-Hilliard, 2003). Similar to my findings of the importance of embeddedness, studies have found that immigrant girls are more likely to be supported by a network of teachers, friends and parents in their pursuit of education (Lopez, 2003; Qin-Hilliard, 2003). Parents often push their daughters to achieve high academic excellence in high school but also expect a combination of family dedication and education where, for example, they are encouraged to attend a local college to live at or live at home (Espiritu, 2001). Immigrant communities often desire to protect second generation immigrant girls as "keepers of culture" (Billson, 1995). Immigrant girls are monitored more strictly compared to boys and through more home and parent time are able to maintain their ethnic culture more—studies therefore have suggested that immigrant girls benefit from the shield of their ethnicity more than boys (Qin-Hilliard, 2003). Lack of parental supervision and attachment to school increases opportunities for immigrant boys to be exposed to negative influences (Qin-Hilliard, 2003). As well, construction of a masculine identity linked to an ethnic identity for many minority boys is also found to often conflict with school, and presentation of masculinity by immigrant minority boys are likely to be perceived as behavioral problems by teachers (Connell, 2000). While such socialized family values and identity development have been attributed to cultural factors explaining gender differences, my results also demonstrate a link of socioeconomic status and neighborhood effect. Second generation immigrant girls place a higher value than immigrant boys on living close to home (see Table 3, Model 4), however this significant difference is reduced when family socioeconomic background such as number of people in the household and neighborhood disadvantage are factored in (see Table 3, Model 6).

Examining the relationship between family and neighborhood characteristics and variation in the four domains of social relationships reveals that, in particular, mother's educational attainment, household size, neighborhood disadvantage and community integration all influence the quality of social relationships during adolescence. Communication with parents is significantly related to the availability and capability of immigrant parents. Second generation immigrant adolescents have more frequent

academic discussions with their parents when their mothers with higher educational attainment, greater economic resources and in households with fewer people. Within the peer and school domain, the number of people in the household also had a significant negative effect on the level of embeddedness. Though some research has found extended household members may bring about collectivist households, larger immigrant households have also been shown to be a source of strain on the economic resources of the family (Kibria, 1993). My results suggest that youth living in larger households are less likely to participate in school activities or work-based programs, regardless of family socioeconomic status. One possibility is that family obligations are greater in these households and youth may be asked to make personal sacrifices such as assisting with chores or care of other family members instead of attending an afterschool school activity (Fuligni, Tseng, & Lam, 1999). As I show in later analysis, embeddedness within schools was an important factor in early educational success. Participating in activities at school may increase opportunities to access resources and develop social ties that support high achieving academic and career goals of immigrant youth (Conchas, 2001).

My results also demonstrated the importance of the neighborhood in shaping the quality of social embeddedness, and particularly parent-child communication among immigrant families. Living in disadvantaged neighborhoods is associated with poorer parent-child communication, controlling for family background and individual characteristics. I also found within the family domain that community integration is positive for intergenerational closure—immigrant families that feel they belong in their neighborhood are more likely to know the parents of their children's friends. While there is a complexity in examining neighborhood effects for children's development as family and community conditions can often co-occur, these results illustrate two potential forces at play (Alexander, Entwisle, & Olsen, 2014). First, neighborhood characteristics can affect family management and parent-child relationships, as studies have indicated. While families in more disadvantaged neighborhoods practice greater investment in their children within the household, this is limited by the resources available by parents (Furstenberg, 1999); as discussed earlier, there is great variation in parental human capital among immigrant families. Second, studies have found that neighborhood disadvantage scatters families as families retreat from the public space and are isolated from one another (Alexander, Entwisle, & Olsen, 2014). Here, I too find that intergenerational closure is decreased by neighborhood disadvantage and this further limits opportunities for immigrant families to develop networks where they can share knowledge and resources that can better support their adolescents.

Also, of interest are the reports of immigrant adolescent's peer groups and their plans for after high school, as they are also found to be significant longitudinally in affecting early adulthood patterns and later adulthood status attainment (see for example, Tables 9 and 21). Adolescents living in more disadvantaged neighborhoods were found to be more likely to have peers who plan for a full-time job or

community college after high school, and less likely to plan for a four-year college (Table 4). These findings illustrate the advantage of neighborhoods in shaping high achieving peer groups for second generation immigrant adolescents. While there is a saying that "birds of the same flock together," research has found that friendship choices overlap not only by individual characteristics such as ethnicity but also along socio-economic lines (McPherson, Smith-Lovin, & Cook, 2001). In particular, residential segregation may drive group formation of immigrants that further isolates immigrant families from non-immigrant families that may have higher knowledge of the U.S. (Ooka, & Wellman, 2001).

The Educational Pathway of Second Generation Immigrants

My second research question was to examine how the intensity and quality of relationships shape education, work and family formation patterns during early adulthood. And subsequently, my third research question examined how social embeddedness is related to later status attainment and well-being ten years later, and if it is mediated by early adulthood patterns. The results illustrate that relationships with family, peers, schools and communities in adolescence are related to on-time high school graduation, college enrollment, full-time employment and having a child in early adulthood. In particular, social embeddedness during adolescence is significant in shaping the institutional connectedness of second generation immigrants in young adulthood. Socially embedded immigrant young adults are found more likely to be enrolled in college, compared to disconnected from post-secondary institutions or the labor market. These early advantages also shape educational attainment, employment income and civic engagement in adulthood. In particular, embeddedness within supportive relationships during adolescence propels immigrant youth on positive educational pathways that results in higher educational attainment ten years later. While social embeddedness does not emerge as significant in affecting adulthood employment income, early adulthood education and work statuses (which are shaped by social embeddedness) are influential in immigrant adulthood income. Interestingly and significantly especially given the current U.S. political context, the intensity and quality of relationships during adolescence is vital ten years later in affecting if second generation immigrants vote.

The social relationship variables of: parent-child communication, peers planning to attend a four-year college, participation in school activities and volunteering in high school emerge as significant long-term during the educational pathway of second generation immigrants, including the likelihood of on-time high school graduation, being enrolled in post-secondary education, and overall adulthood educational attainment. The results suggest that many second generation immigrant youth get off to a good start—and graduate from high school on-time and at a higher rate than the national average in the U.S. that year. Contributing to this graduation rate are the support of family, peer and school adults—within these social embeddedness domains, immigrant youth find academic engagement and motivation. Second generation immigrant youth who are able to discuss with their parents on academic topics and who have peers who

actively plan to enroll in college positively increases the likelihood that they will graduate on-time from high school.

In addition, social embeddedness is significant in shaping the postsecondary enrollment of second generation immigrant youth. Particularly, discussions with parents, having a peer group that plans to attend college, having a supportive teacher relationship, and community participation result in a greater likelihood that immigrant young adults will be enrolled only in college. This relationship of social embeddedness and post-secondary enrollment demonstrate the importance of having environments that directly support academic values and have access to academic resources. This advantage not only contributes to on-time graduation but help immigrant youth navigate the college search, application and enrollment process. Additionally, as shown in Tables 12 to 15, the same social embeddedness measures of a supportive teacher relationship, peer plans and community participation reduces the odds of immigrant youth having a child in early adulthood, which has been found to delay educational goals especially of minority women (Alexander, Entwisle, & Olson, 2014; Sandefur, Eggerling-Boeck, & Park, 2005).

However, while 58 percent of those that graduate enroll in a four- or two-year school, by the time they reach adulthood 27 percent of second generation immigrants will have some post-secondary experience but will not have earned a degree. Thirty-three percent of second generation immigrant adults hold a bachelor's degree compared to the national average of 59 percent (NCES BPS 2003-2009 corresponding average). Research has suggested that even if college enrollment was miraculously equalized, there is such a strong difference in persistence that there will still be gaps in college completion (Alexander, Entwisle & Olsen, 2014). My findings of adulthood educational attainment points to the significance of early adult family patterns that may be affecting these completion rates. While being enrolled in post-secondary on-time after high school in early adulthood is significant in attaining more education, living arrangements (i.e. living with parents or living with a spouse) and having a child in early adulthood hold a greater influence (see Table 19) in affecting educational attainment of second generation immigrant adults. Studies have found that black and Hispanic women are at greater risk of "getting off to a bad start" than Asian and white women, with greater likelihood of little postsecondary education in conjunction with bearing a child out of wedlock (Sandefur, Eggerling-Boeck, & Park, 2005). My findings support this notion. In addition, for some immigrant youth, living with parents in early adulthood may be due less to an active choice for advancement reasons (e.g., saving money for college) but rather, could also be a decision reliant on family obligations that may limit educational attainment—lending evidence to the double-edge sword of family embeddedness (Osgood, Ruth, Eccles, Jacobs, & Barber, 2005).

However, certain social embeddedness measures in adolescence remain significantly associated with greater educational attainment among second generation immigrants ten years later, even after taking into account earlier education and work patterns. In particular, parent-child communication, having peers who plan for a four-year college, participation in school activities and volunteering during high school remain positive in affecting educational attainment even after controlling for family background, neighborhood characteristics and early adulthood education, work and family formation. These findings illustrate that for second generation immigrants, there is an enduring advantage of beginning the transition to adulthood with strong social embeddedness that both supports academic achievement and also allows for access to educational resources.

The Link of Civic Engagement and Education

Along with other markers of adulthood, practicing active citizenship is an important societal measure of the transition into adulthood within the U.S. and is an especially key part of second generation immigrant adult's role in shaping society. Civic engagement in adulthood is fostered, in part, by the accumulation of early opportunities available to foster civic skills, knowledge and motivations (Flanagan, 2010). Research has shown that engagement in extracurricular activities in high school and being embedded within community institutions predicted voting in young adulthood, controlling for background factors (Flanagan, 2010). My results support these connections by demonstrating the long-term significance of peer effects and volunteering in adolescence on voting activity of second generation immigrant adults ten years later. Performing unpaid volunteer work during high school has an enduring effect on increasing the likelihood that second generation immigrants will vote in adulthood. However, social embeddedness is also influential in shaping early adulthood post-secondary enrollment and work transitions, which are linked to civic engagement in adulthood of second generation immigrants. These patterns are significant as the growing social class disparities in civic engagement begin in pre-adult years and are further exacerbated by unequal opportunities to participate within institutions, such as schools and colleges, for civic practice.

Studies have found that young adults with post-secondary experience compared to those who do not attend college are significantly more civically engaged. While this difference may stem from accumulated childhood advantages, for instance, post-secondary institutions are known to directly strengthen civic skills and knowledge of their students. Opportunities such as political events and discussions on campus, courses involving political and community issues, student organizations and study-abroad opportunities are a few examples of the integration of education and the civic domain within post-secondary institutions. Young adults who are in the workforce only, especially low-income and minority youth, have less of these institutionalized opportunities for civic engagement, especially those who do not participate in a union—one of the few, and decreasing, institutional opportunities for civic

learning of non-college-bound youth (Flanagan, 2010). As my findings illustrate, for second generation immigrant youth, the educational and occupational pathways they embark on during early adulthood significantly impact their opportunities to access civic engagement opportunities. Analyzing only the impact of higher education on civic engagement misses the long link of civic engagement: second generation immigrants who have a strong sense of social embeddedness in adolescence are more likely to graduate high school on-time, be enrolled only in post-secondary, attain higher education—and vote in adulthood.

Conclusion

Early engagement of immigrant youth across social domains may help form quality social relationships that allow for building of social capital and connection to positive educational and occupational pathways. My results, for one, support the importance of providing these social embeddedness opportunities early on that will continue second generation immigrant's continual civic engagement and as well support them in the connection to educational institutions during the transition to adulthood. The strong, positive association between volunteering and educational attainment, for instance, demonstrates that if there is limited school attachment then community-level embeddedness may be another strategy in shaping immigrant development. Volunteering in the community positively increases educational gains, earnings and civic engagement in adulthood of second generation immigrants. Second, the strong link of post-secondary education and voting, as found in prior research, calls for the need to develop alternative sites of civic practice outside of higher education. Nearly 40 percent of second generation immigrant youth did not engage in a post-secondary institution immediately after high school, demonstrating the continuing wide disparities for civic participation by racial and immigration group. As second generation immigrants transition into mature adulthood and comprise a significant part of the U.S. adult group, immigrant young adults must have opportunities to identify with and contribute to their society.

Utilizing segmented assimilation theory as a framework for this study, I find evidence to support the idea that disparities in human capital, family structure and mode of incorporation on the community level can lead to divergent pathways into adulthood. Maternal education, household income and number of people living in the household had a significant effect on social embeddedness during adolescence and the transition to adulthood. Neighborhood disadvantage and community integration also shaped social embeddedness, supporting Portes and Zhou (2003)'s argument that local levels of incorporation (e.g. community reception), in part, determines paths of mobility for second generation immigrants. Immigrant families who feel they are a part of their community have children with higher social embeddedness, such as more time spent in extracurricular activities—which leads to higher educational attainment in adulthood. This study finds, however, that second generation immigrants appear to have a

good start during adolescence and a significant group have attained a bachelor's degree and vote. Despite a strong majority that seems to have assimilated, there are some who become disconnected in young adulthood and remain so. While this finding does contradict segmented assimilation theorist's discussion of downward assimilation, the limitation of this study is the lack of measures on cultural and community attachment in adulthood of second generation immigrants. Central to segmented assimilation theory are the three possible paths of assimilation that includes integration into the U.S. middle class (straight-line assimilation); assimilation into the urban underclass (downward assimilation); and an intentional preservation of immigrant community culture that is followed by economic integration (selective acculturation). While ELS measures community integration during adolescence, there are no comparable measures of community culture in adulthood, which limits analysis of selective acculturation. Results do show, nonetheless, that embeddedness within community in adolescence does support a positive transition to adulthood of second generation immigrants.

Limitations and Directions for Future Research

While ELS sampled Asian students at a higher rate to ensure a comparable comparison group, within the second generation immigrant sample the ethnic groups were too small for a sufficient analysis model. As my results indicate, there are wide disparities between Hispanic and Asian second generation immigrant transitions to adulthood. Some of these racial group differences were reflected in part by variation in social embeddedness during adolescence, family background and neighborhood characteristics. However, as research has found great diversity within Asian and Hispanic immigrant groups, it is important to explore these differences by immigration origin and history (Passel, 2011; Takaki, 2012). One direction of future research is to explore further the Asian-Hispanic difference in social embeddedness and adulthood transitions—and the extent immigration background mediates this relationship. Along the same vein, recent Census Bureau data estimates have found that while both Hispanic and Asian populations within the U.S. are both growing, they are fueled by different reasons. Hispanic population is driven by U.S. births, while Asian growth is increasing primarily through international migration (Brown, 2014). Indeed, Asians are the fastest growing foreign-born population within the U.S. These population trends reflect the importance of understanding what the "contemporary second generation immigrant" group consists of and cohort variation. My study focuses primarily on adult children of immigrants who were born in the late 1980s. Another direction of future research is to extend my analysis of the longitudinal link of social embeddedness, education and civic engagement with later cohorts of second generation immigrants that will be transitioning into adulthood. The current and later second generation immigrant children (compared to my present adult group) have different immigration histories, as shown in the Census estimates, and are growing up under different social

policies and cultural ideologies in the U.S. What it means to be "embedded" may change for these groups and their needs for support during the transition to adulthood should be examined.

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Appendix A: Metrics of Adolescent Social Relationship and Adulthood Outcome Variables

Variable Name	Description	Metric	Mean	SD	Min	Max
Quality of Social Relationships Variables Measured in Adolescence (Ages 15-18, 2002)						
Family Domain						
Parent-Child Communication	Sum how often discuss the following topics with parents: • School courses • School activities • Things studied in class • Grades • Prep for ACT/SAT • Going to college • Current events • *Cronbach's Alpha: .9*	0=Never; 1=Sometimes; 2=Often	1.08	.5	0	2
Family Value: Living close to home	• Importance of living close to parents or relatives	0=Not important; 1= Somewhat important; 2=Very important	1.12	.64	0	2
Mother's Aspiration for Youth to Attend College	If the mother "desires for the respondent to attend college after high school"	0=No; 1=Yes	.85	.35	0	1
College Entrance Information: Family	If gone to any of the below individuals for college entrance information: • Parent • Sibling • Other relative	0=No; 1=Yes	.71	.45	0	1
Intergenerational Closure	Sum: • Respondent knows friend's parents • Parents know friend's parents • Measured for three friends • *Cronbach's Alpha: .*	0=No; 1=Yes	3.3	2.0	0	6

Appendix A: Metrics of Adolescent Social Relationship and Adulthood Outcome Variables (cont.)						
Variable Name	**Description**	**Metric**	**Mean**	**SD**	**Min**	**Max**
Peer Domain						
Leisure Time with Friends	• How often visits with friends in local hang outs • How often talks on phone with friends • How often uses computer at friend's house • *Cronbach's Alpha: .5*	1=Rarely; 2=Less than once a week; 3= Once or twice a week; 4=Everyday	2.5	.6	1	4
Peer Academics Value	Average "important to friends to": • To attend classes • To study • To get good grades • To finish high school • To continue education • *Cronbach's Alpha: .8*	0=Not important; 1=Somewhat important; 2=Very important	1.5	.42	0	2
Peer Social Value	Average "important to friends to": • To play sports • To be popular • To have a steady boyfriend or girlfriend • To go to parties • To get together • *Cronbach's Alpha: .7*	0=Not important; 1=Somewhat important; 2=Very important	1.13	.46	0	2
Peer Employment Value	Average "important to friends to": • To have a job • To make money • *Cronbach's Alpha: .6*	0=Not important; 1=Somewhat important; 2=Very important	1.19	.56	0	2
Peer Community Value	• Important to friends to do community service	0=Not important; 1=Somewhat important; 2=Very important	.70	.67	0	2

Appendix A: Metrics of Adolescent Social Relationship and Adulthood Outcome Variables (cont.)						
Variable Name	**Description**	**Metric**	**Mean**	**SD**	**Min**	**Max**
Peer's Plan After High School: Full-time Job	• How many friends plan to have a full-time job after high school	0=None; 1=A few; 2= Some; 3=Most; 4=All	1.3	1.0	0	4
Peer's Plan After High School: Community College	• How many friends plan to attend 2-year community college	0=None; 1=A few; 2= Some; 3=Most; 4=All	1.5	.98	0	4
Peer's Plan After High School: Four-year College	• How many friends plan to attend 4-year college	0=None; 1=A few; 2= Some; 3=Most; 4=All	2.4	1.0	0	4
College Entrance Information: Friends	• Gone to friend for college entrance info	0=No; 1=Yes	.65	.47	0	1
School Domain	•					
Time in Extracurricular Activities	• Hours per week spent on extracurricular activities		3.7	5.1	0	21
Participation in School Activities	• Sum together if participated in: intramural sports, interscholastic sports, school band, school play, student government, academic honor society, school yearbook, school service clubs, school academic clubs, school hobby clubs, school vocational clubs	0=No; 1=Yes	.9	1.3	0	9
Supportive Teacher Relationship	• In class often feels put down by teachers (reverse coded)	1=Strongly agree; 2=Agree; 3=Disagree; 4=Strongly disagree	3.13	.68	1	4

Appendix A: Metrics of Adolescent Social Relationship and Adulthood Outcome Variables (cont.)						
Variable Name	**Description**	**Metric**	**Mean**	**SD**	**Min**	**Max**
Work-Based Program Participation	• Participated in work-based learning experiences program	0=No; 1=Yes	.39	.48	0	1
College Entrance Information: School	If gone to any of the below individuals for college entrance information: • Teacher • Counselor • Coach	0=No; 1=Yes	.87	.33	0	1
Community Domain	•					
Community Participation	• Performed unpaid volunteer work in either second or fourth year of high school	0=No; 1=Yes	.70	.45	0	1
Education, Work and Family Patterns Measured in Early Adulthood (Ages 19-22, 2006)						
On-Time High School Graduation	• Graduated on-time from high school	0=No; 1=Yes	.85	.34	0	1
Early Adulthood Enrollment and Work Pattern	• Current employment and postsecondary enrollment status in 2006 • "Neither working for pay nor enrolled" includes a status of unemployed or out of the labor force, for example.	1=Working for pay, not enrolled; 2=Enrolled, not working for pay 3=Working for pay and enrolled; 4=Neither working for pay nor enrolled	1.8	1.1	1	4
Having a Child	• Having at least one biological child	0=No; 1=Yes	.05	.23	0	1

Appendix A: Metrics of Adolescent Social Relationship and Adulthood Outcome Variables (cont.)						
Variable Name	**Description**	**Metric**	**Mean**	**SD**	**Min**	**Max**
Outcome Variables Measured in Adulthood (Ages 25-28, 2012)						
Educational Attainment	• Highest level of education completed as of 2012	1=No HS credential, no PS attendance; 2=HS credential, no PS attendance; 3=Some PS attendance, no PS credential; 4=Undergraduate certificate; 5=Associates degree; 6=Bachelor's degree; 7=Post-Baccalaureate certificate; 8=Master's degree; 9=Doctoral degree	4.7	1.9	1	9
Employment Income	• Employment income in 2011		25975.51	24261.88	0	250000
Civic Engagement	• Voted in 2008 presidential election or local/state election from 2009 to 2011					
Individual, Family and Neighborhood Characteristics						
Male			.5			
Asian	• Asian, Hawaiian or Pacific Islander		.35			
Black	• Black, non-Hispanic		.06			
Hispanic			.36			

Appendix A: Metrics of Adolescent Social Relationship and Adulthood Outcome Variables (cont.)						
Variable Name	**Description**	**Metric**	**Mean**	**SD**	**Min**	**Max**
White	• White, non-Hispanic		.15			
Parental Educational Level	• Mother's highest level of education	1=Did not finish high school; 2=Graduated from high school or GED; 3=Attended 2-year school, no degree; 4=Graduated from 2-year school; 5=Attended college, no 4-year degree; 6=Graduated from college; 7=Completed Master's degree; 8=Completed PhD, MD, advanced degree	3.4	2.1	1	8
Annual Family Income	• Total family income from all sources	Composite measure, 13 categories that increase in $5,000 increments; 1=None; 2=$1,000 or less; 3=$1,001-$5,000; 8=$200,001 or more	8.6	2.5	1	13

Appendix A: Metrics of Adolescent Social Relationship and Adulthood Outcome Variables (cont.)						
Variable Name	**Description**	**Metric**	**Mean**	**SD**	**Min**	**Max**
Parent's Low English Fluency		0=Fluent 1=Not fluent to partially fluent;	.33	.47	0	1
Household Composition	• Number of household members		3.6	1.5	1	6
Neighborhood Disadvantage	Sum of the standardized Z-scores of: • % below poverty • % unemployment • % foreign-born		.00	2.4	-3.8	10.5
Community Integration	If the parental respondent feels as though they are part of the neighborhood or if it is more of just a place to live	0=Just a place to live; 1=Feel a part of neighborhood or community	.64	.47	0	1

Appendix B: Collinearity Diagnostics by Social Embeddedness Domain[1]

Variable	Variance Inflation Factor	SQRT VIF	Tolerance
Family Domain			
Parent-Child Communication	1.09	1.04	.97
Valuing Living Close to Home	1.04	1.02	.96
Maternal College Aspiration	1.01	1.01	.98
College Entrance info from Family	1.03	1.01	.97
Intergenerational Closure	1.03	1.01	.97
Mean VIF	**1.04**		
Peer Domain			
Leisure Time with Friends	1.12	1.06	.89
Peer Academics Value	1.22	1.11	.81
Peer Social Engagement Value	1.33	1.15	.75
Peer Employment Value	1.29	1.13	.77
Peer Community Value	1.21	1.10	.82
Peer Plan Full-Time Job	1.30	1.14	.77
Peer Plan 2-year College	1.31	1.14	.76
Peer Plan 4-year College	1.22	1.10	.82
College Info from Friends	1.09	1.05	.91
Mean VIF	**1.23**		
School Domain			
Time in Extracurricular Activities	1.07	1.03	.93
Participation in School Activities	1.14	1.07	.87
Supportive Teacher Relationship	1.00	1.00	.99
Work-Based Program Participation	1.10	1.05	.91
College Entrance Info from School	1.01	1.01	.98
Mean VIF	**1.07**		

[1] As a rule of thumb, a variable whose VIF values are greater than 10 may merit further investigation. Tolerance, defined as 1/VIF, is used by many researchers to check on the degree of collinearity. A tolerance value lower than 0.1 is comparable to a VIF of 10. (Studenmund, 2001; UCLA: Statistical Consulting Group, 2012)